

CHAMP QUEST

THE ULTIMATE SEARCH

2000

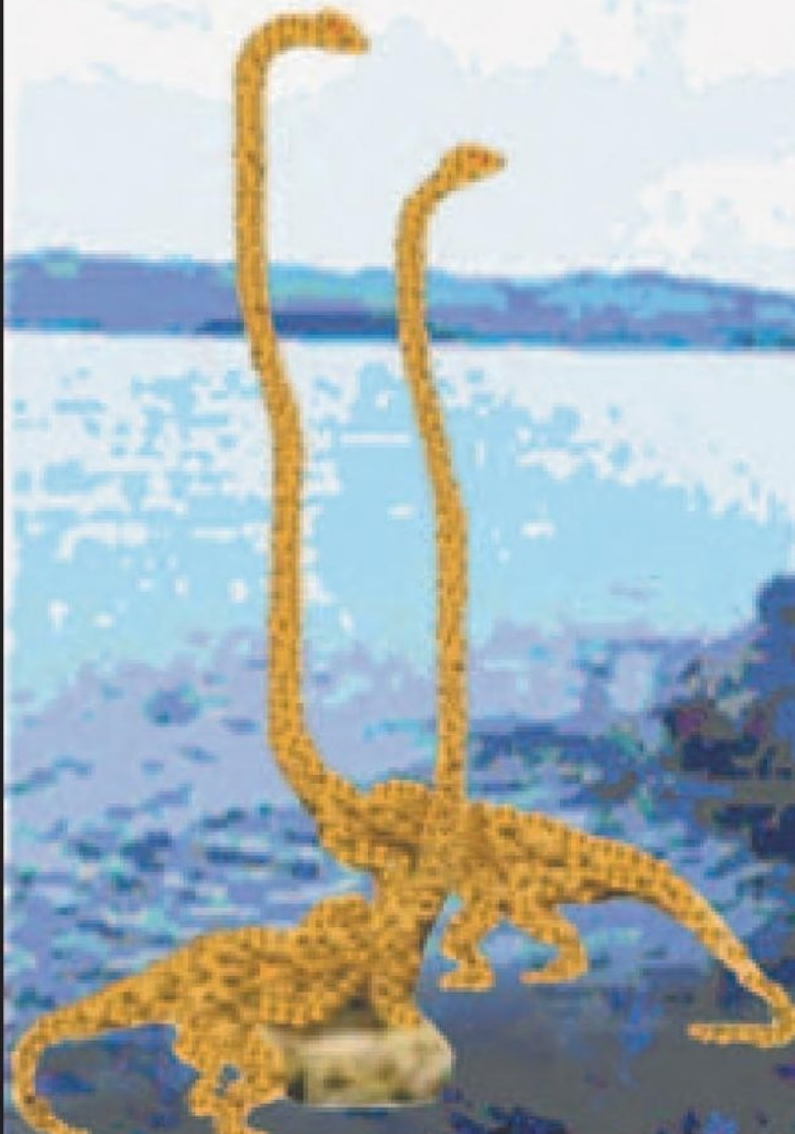
FIRST EDITION

FIELD GUIDE
& ALMANAC
FOR
LAKE CHAMPLAIN

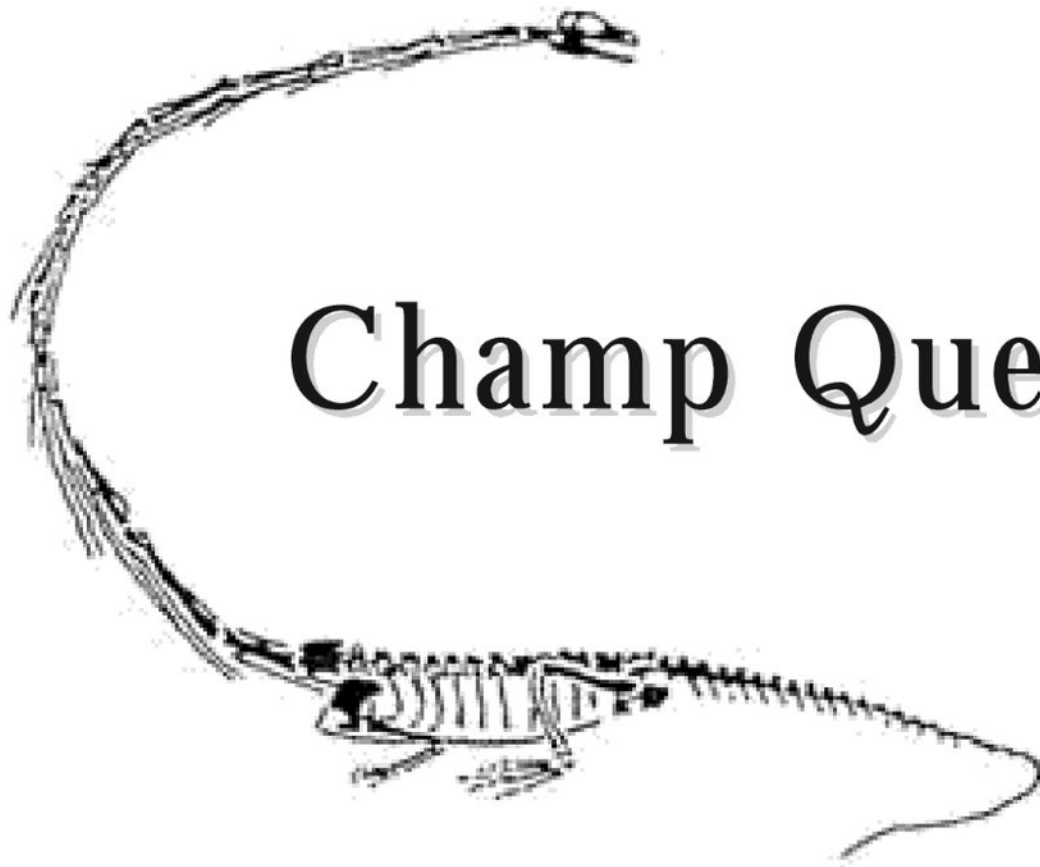
DENNIS JAY HALL

INSIDE:

- NEW EVIDENCE
 - RECENT SIGHTINGS
 - BEST SEARCH DATES
 - ZEBRA MUSSELS
 - BLUE-GREEN ALGAE
 - HISTORICAL SIGHTINGS
- SEEN IN 1999 ON *THE DAILY SHOW WITH JON STEWART*
& IN THE FEBRUARY 2000
ISSUE OF *SPORTS AFIELD*



THE ULTIMATE SEARCH



Champ Quest

2000

FIELD GUIDE & ALMANAC
FOR LAKE CHAMPLAIN

DENNIS JAY HALL

BY DENNIS JAY HALL

CHAMP QUEST 2000

THE ULTIMATE SEARCH
FIELD GUIDE & ALMANAC
OF BEST SEARCH DATES
FOR LAKE CHAMPLAIN

FIRST EDITION

MARCH 2000

COPYRIGHT 2000 DENNIS JAY HALL

PUBLISHED BY

ESSENCE OF VERMONT

860 Panton Road
Panton, Vermont 05491

WWW.ESSENCEOFVERMONT.COM

ISBN 1-928837-01-8

COVER DESIGN & PHOTOGRAPH
COPYRIGHT 2000 DENNIS JAY HALL

COVER PHOTOGRAPH
ARNOLD'S BAY
PANTON, VERMONT

ANIMALS DEPICTED ON COVER
CHAMPTANYSTROPHEUS

WWW.CHAMPQUEST.COM

TABLE OF CONTENTS

TABLE OF CONTENTS

INTRODUCTION	15
NEW EVIDENCE	25
ZEBRA MUSSELS & BLUE-GREEN ALGAE: TEAM PLAYERS	33
CHAMPTANYSTROPHEUS	49
SEARCH TIPS	57
RECENT SIGHTINGS	61
BEST SEARCH DATES FOR 2000	81
APRIL	83
MAY	85
JUNE	87
JULY	89
AUGUST	91
SEPTEMBER	93
OCTOBER	95
NOVEMBER	97
PHOTOGRAPHIC EVIDENCE	101
HISTORICAL SIGHTINGS	111
GLOSSARY	131
INDEX	143
ILLUSTRATIONS - MAPS - PHOTOGRAPHS	
FIG. 1 TANYSTROPHEUS	16
FIG. 2 DOUBLE RAINBOW OVER BUTTON BAY	20
FIG. 3 BLUE-GREEN ALGAE BLOOM - LAKE CHAMPLAIN - AUGUST 1999	21
FIG. 4 FOSSILIZED FISH DISCOVERED BY THE AUTHOR IN 1999	21
FIG. 5 INDIAN ROCK	26
FIG. 6 DETAIL FROM MANSI PHOTO	29
FIG. 7 ENLARGED INSCRIPTION FROM INDIAN ROCK	29
FIG. 8 TANYSTROPHEUS SKELETAL ILLUSTRATION	29
FIG. 9 FOSSILIZED TANYSTROPHEUS	29
FIG. 10 ENLARGEMENT OF THE SERPENT CARVED ON THE INDIAN ROCK	30
FIG. 11 ENLARGEMENT OF ANIMAL PHOTOGRAPHED JULY 3, 1993	30
FIG. 12 ANIMAL PHOTOGRAPHED JULY 3, 1993	30
FIG. 13 BLUE-GREEN ALGAE BLOOM BUTTON BAY SUMMER '99	41

TABLE OF CONTENTS

FIG. 14	CLOSE-UP OF AN ALGAE BLOOM	45
FIG. 15	CHAMPTANYSTROPHEUS ICON	49
FIG. 16	IMMATURE TANYSTROPHEUS SKULL	50
FIG. 17	SKETCH OF “BABY” SEEN IN BUTTON BAY	50
FIG. 18	ADULT TANYSTROPHEUS SKULL	51
FIG. 19	TANY FOOT	51
FIG. 20	TANYSTROPHEUS SKELETAL VIEW	51
FIG. 21	TANYSTROPHEUS SKELETAL VIEW	52
FIG. 22	TANYTRACHELOS	52
FIG. 23	MACROCNEMUS	53
FIG. 24	INDIAN FISHING WEIR	57
FIG. 25	SAMUEL DE CHAMPLAIN	58
FIG. 26	1997 SIGHTING LOCATION MAP OF LAKE CHAMPLAIN	61
FIG. 27	1998 SIGHTING LOCATION MAP OF LAKE CHAMPLAIN	67
FIG. 28	1999 SIGHTING LOCATION MAP OF LAKE CHAMPLAIN	73
FIG. 29	MAP OF JUNE 1, 1999 SIGHTING	75
FIG. 30	PHOTOGRAPH TAKEN DURING JULY 7, 1999 SIGHTING	78
FIG. 31	COMPUTER ENHANCED MANSI PHOTOGRAPH	101
FIG. 32	COMPUTER ENHANCED MANSI PHOTOGRAPH	101
FIG. 33	COMPUTER ENHANCED MANSI PHOTOGRAPH	101
FIG. 34	PHOTOGRAPH FROM JULY 3, 1990 SIGHTING	102
FIG. 35	PHOTOGRAPH FROM NOVEMBER 8, 1992 SIGHTING	103
FIG. 36	ENHANCED STILL SHOT FROM 1985 HALL VIDEO	104
FIG. 37	ENHANCED STILL SHOT FROM 1985 HALL VIDEO	105
FIG. 38	PHOTOGRAPH TAKEN DURING JULY 4, 1993 SIGHTING	106
FIG. 39	PHOTOGRAPH TAKEN DURING JULY 4, 1993 SIGHTING	106
FIG. 40	PHOTOGRAPH TAKEN DURING JULY 4, 1993 SIGHTING	106
FIG. 41	PHOTOGRAPH TAKEN DURING JULY 4, 1993 SIGHTING	107
FIG. 42	COPY PAPER GRAPH RECORDED SEPT 1993	108
FIG. 43	COPY PAPER GRAPH RECORDED SEPT 1993	108
FIG. 44	MAP OF SOUTHERN LAKE CHAMPLAIN 1892	120
FIG. 45	LAKE CHAMPLAIN STEAMBOAT ROUTE 1892	120
FIG. 46	MAP OF DRESDEN, NEW YORK	120
FIG. 47	BEST SEARCH DATE ICON	131
FIG. 48	ELASMOSAURUS	133
FIG. 49	TIMELINE	138

INTRODUCTION

LAKE CHAMPLAIN WATER STATISTICS

1980's AVERAGE *LOW* LAKE LEVEL: 94.55 FT

1980's AVERAGE *HIGH* LAKE LEVEL: 99.22 FT.

1990's AVERAGE *LOW* LAKE LEVEL: 94.58 FT.

1990's AVERAGE *HIGH* LAKE LEVEL: 99.81 FT.

MEAN LAKE LEVEL FROM 1900 TO 1970: 95.60 FT.

MOST LIKELY LOW WATER PERIOD: 7-DAY PERIOD APR. 20-26

30-DAY PERIOD SEPT. 4 -OCT. 1

RECORD LOW: 92.04 FT./NOV. 23, 1908

RECORD HIGH: 101.88 FT./APR. 27 AND 28, 1993

NORMAL BEHAVIOR:

LOW WATER 95.5 FEET IN SEPTEMBER OR OCTOBER.

SLOW RISE TO 97 FEET IN EARLY MARCH.

RAPID RISE TO HIGH WATER - 100.5 FEET - IN APRIL OR MAY.

SLOW FALL TO LOW WATER.

EARLIEST FREEZE OVER: JAN. 7, 1868

LATEST FREEZE OVER: MAR. 26, 1894

MEAN FREEZE OVER: FEB. 11

MEAN LAKE OPENING: APR. 8

MEAN DATE TO BEGIN SPRING SEARCH FOR CHAMPTANYSTRO-
PHEUS: MAY 15

LAST DATE LAKE CHAMPLAIN FROZE END TO END: FEB. 5, 1996

INTRODUCTION

Champ Quest was officially organized in 1992. It was the result of twenty plus years of research on my part and the zeal and enthusiasm of two young researchers, one from Pennsylvania, Richard A. Duel and the other, my son Preston Neil Hall.

We are a not for profit organization whose mission is to:

1. Protect the animals known as Champ from accidental or intentional harm by educating the public.
2. Better understand the animals known as Champ in order to protect their habitat and secure their existence as a species.
3. Monitor the impact Zebra Mussels and other recent invaders have on Lake Champlain.

THIS BOOK IS NOT WRITTEN FROM THE VIEWPOINT,
WHAT IF... ? CHAMP EXISTS.

I have seen these animals on twenty occasions. Some of my sightings involved more than one animal and one encounter involved three senses - sight, sound, and smell. There is a healthy population of these animals living in Lake Champlain. They are here for a reason; this is their chosen home.

The most frequently asked question: "WHAT IS CHAMP?"

I have described what I have seen as lizard-like animals with a long neck, four stout legs and webbed turtle like feet. They have a forked tongue and omit a hissing noise. They love the shallow waters, eat small fish and are seen on land. At birth they are a foot long and will grow to twenty feet. Oh, and they are very ugly. The babies are kinda cute.

My up close sightings of these animals have led me off the beaten path that most cryptozoologists have chosen to follow. The most common theory is that they are members of the Plesiosaurus family. These great ocean going reptiles of the *MESOZOIC ERA* were huge, up to forty six feet long. There were many species of *PLESIOSAUR* including the *Elasmosaurus* (see pg.133). This animal best depicted what I and many other people have seen in Lake Champlain and many other lakes worldwide.

It remained on the top of my list, until, one day while browsing in the South Burlington, Vermont, *Barnes and Noble*, I found a picture of a very early reptile named TANYSTROPHEUS. After much research, I knew I had found a near perfect match, in both behavior and looks, to the animals I have observed living and thriving in Lake Champlain.

I have spent twenty years compiling first-hand information about the mysterious animals living in Lake Champlain. My own sightings of these reptiles, and a lucky break, have given me the information needed to narrow the window of opportunity for you to conduct a successful search.



FIG. 1

CHAMPTANYSTROPHEUS

LENGTH: 16-20 FEET

The lucky break came one day out of the blue. My brain had been working overtime for answers and spit one out from an unexpected angle. I had been looking for any kind of pattern, using past sightings as reference, anything to give me the edge.

That's when my brain asked, Are there any times of the month that they are not seen? I knew the answer. The animals hadn't been seen (by me) during a new moon. But, I had seen it on the days before and days after a new moon. Research showed that many reported sightings had occurred during the week before and few days after a new moon, but none I could find, fell on the actual day.

With this new information the QUEST evolved to a higher level. I compiled and published a first ever list of the most likely dates the animals would be seen. In 1999, four of the six reported sightings occurred on the lunar based dates I theorized would produce sightings. The Moon now plays the biggest role in deciding when I look for Champ (unless someone calls in a sighting as it's happening).

Champtanys are nocturnal animals, as are most fish. During the twilight hours, fish rise to the surface to feed on the bugs, etc., that have accumulated on the surface of the lake during the day.

This is a predictable behavior that fish possess. Champtany feeds on the fish that feed on the bugs. Because of this, they too become predictable.

While on watch one evening, I saw one of these animals herd a school of fish into a shallow cove of a state owned island in Panton, Vermont. It was happening as I arrived at the scene. I could see the animal clearly, as it entered the shallow water. It was moving fast. A quick decision had to be made: keep my eyes on the animal or get the camera.

I watched. This is what I saw.

The animal repeatedly slapped the length of its neck back and forth against the surface of the water. Sight of the creature was lost in the foam and spray which engulfed the area. When the commotion settled, the animal was gone. In its wake, and floating on the surface, were dozens of stunned fish. I marveled at the percussion of the animal's instinctive behavior. After dark the animal returned to feed on the stunned fish. The fish that were not consumed regained their senses and swam away unharmed.

While interviewing a group that had just seen Champ, one excited eyewitness described his sighting with absolute clarity,

"I saw Champ, there really is one, I saw two!"

That is when I would like to ask the age old question, Have you been drinking? Actually, some of the most descriptive interviews have come from people that started to drink after their sighting.

Champ is not alone, and we cannot call them all Champ. What do we call the babies? I refuse to call them little Champies, so I named the one that has been frequently seen in Button Bay, Addison County Vermont, Tany.

During the summer of 1994, Tany and some of his or her friends made a big splash in Button Bay, and State Park Ranger Linde Emerson was watching. It was the wake that made Linde stop and stare out at Lake Champlain's Button Bay. This was not the wake a boat makes. It was slower, smoother, unlike any Emerson had seen. The seasoned ranger was even more surprised by what he saw next; first one brownish bump, then another, then a head connected to the bumpy, undulating spine of what Emerson is convinced is Champ.

"When that sucker popped up, by God, it was amazing!" said Emerson, who had worked as a park ranger for 15 years, and is now retired. *"He was just swimming. The way I see it, he was going after a school of fish."*

The creature, which he estimates was 20-25 feet long, revealed itself for about 30 seconds, and then slipped quietly back under the waters of Button Bay.

In recent times, hundreds of people - boaters, picnickers, swimmers, have seen one or more of these animals. Some took pictures of what they saw. And others wrote books without seeing.

But no one has ever caught a live Champ. Or have they? In 1954, a 14" long reptile was captured in Shelburne Bay. It was described as being *"a baby."*

In 1976, a lizard-like animal was caught by a Vergennes man. It was twelve inches long, held itself up on four sturdy legs, omitted a hissing sound, and had a forked tongue. The man who caught the sturdy little reptile was my father, William H. Hall, and I was there.

The animal at first defied description. It looked like a snapping turtle would without a shell. It held its body well off the ground as it walked out of the water. The gait was that of a turtle. The tongue of the animal was forked and darted in and out as it tested the air. The animal omitted a loud hissing noise. The head was a cross between a snake and a turtle and was attached to a short neck. The body was slender with a medium length tail. The feet had five webbed, clawed toes. This is where the story ended in the 1999 Field Guide. Years of searching for a match to this animal had proved fruitless, until I saw a picture of a reptile called *Macrocnemus*. It resembles, to the best of my recollection, the animal my father caught 25 years earlier in Otter Creek.

In Oct. 1999, the National Geographic Society announced that the link between birds and dinosaurs had been found. This announcement was re-cannted in Jan. of 2000; jumbled bones had caused a mistake...I think mistaken identity is also the case with an early reptile that is known to have lived side by side with Tanystropheus. Macrocnemus bears a remarkable resemblance to descriptions of animals seen in Lake Champlain that are not quite “Champ” sightings, but aren’t anything else either. The detail that has led me to think that this reptile is in fact a juvenile Tanystropheus is the neck. An in depth look at the possibilities are explored within.

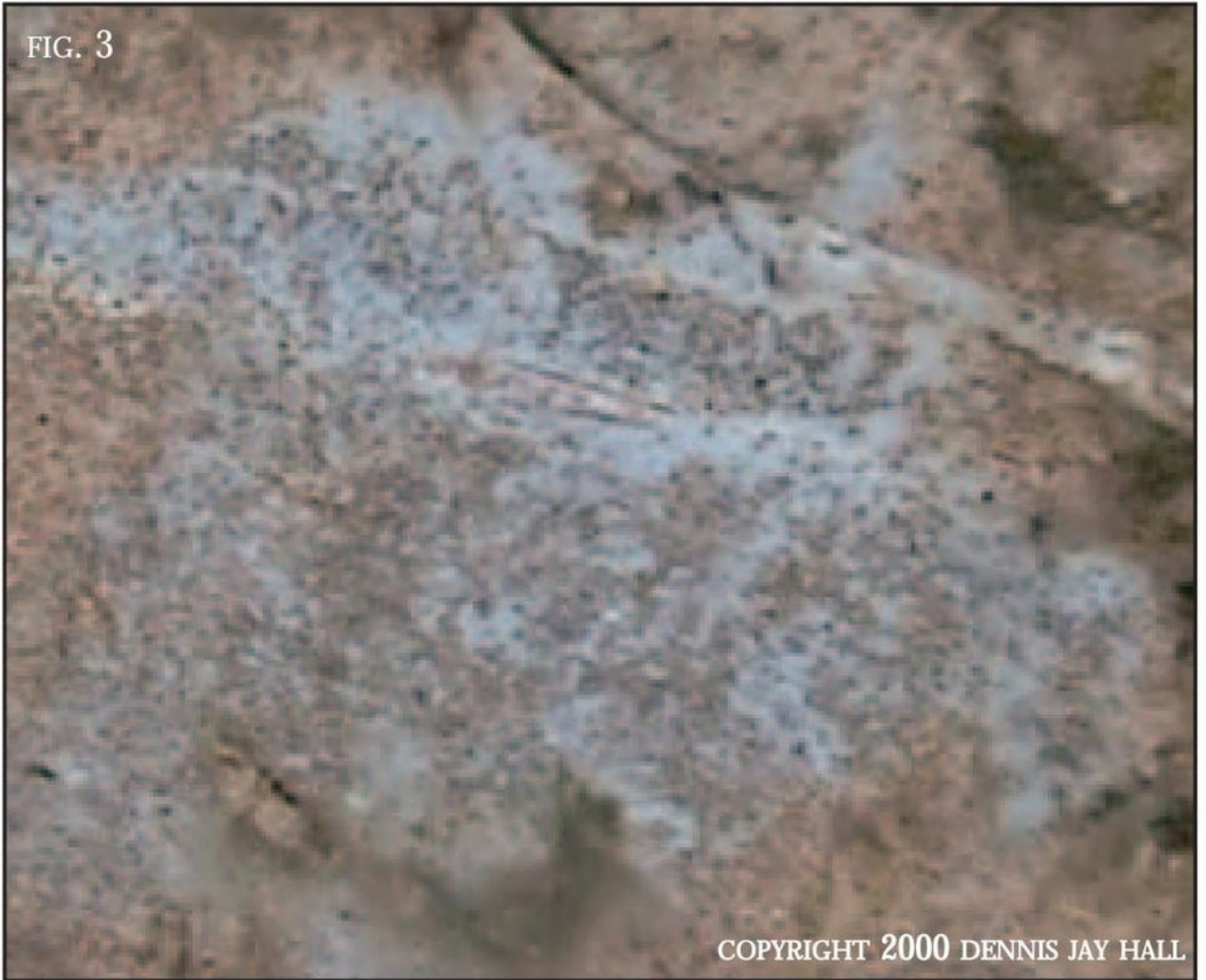
Also, new evidence from the past has been discovered. An Indian rock carving in Brattleboro, Vermont, contains an image of what appears to be a Champtanystropheus...You be the judge. Remember, even if you don’t see Champ.....

.....

ONE THING THAT YOU CAN BE SURE TO SEE WHILE SEARCHING FOR CHAMP, IS THE NATURAL BEAUTY OF LAKE CHAMPLAIN. THIS ALONE WILL KEEP YOU COMING BACK FOR MORE. COMBINE THE NATURAL BEAUTY WITH THE BEAUTY OF A TRUE MYSTERY SUCH AS CHAMP, AND IT MIGHT LOOK LIKE THE PICTURE I CAPTURED ONE EVENING WHILE SEARCHING.....



FIG. 3

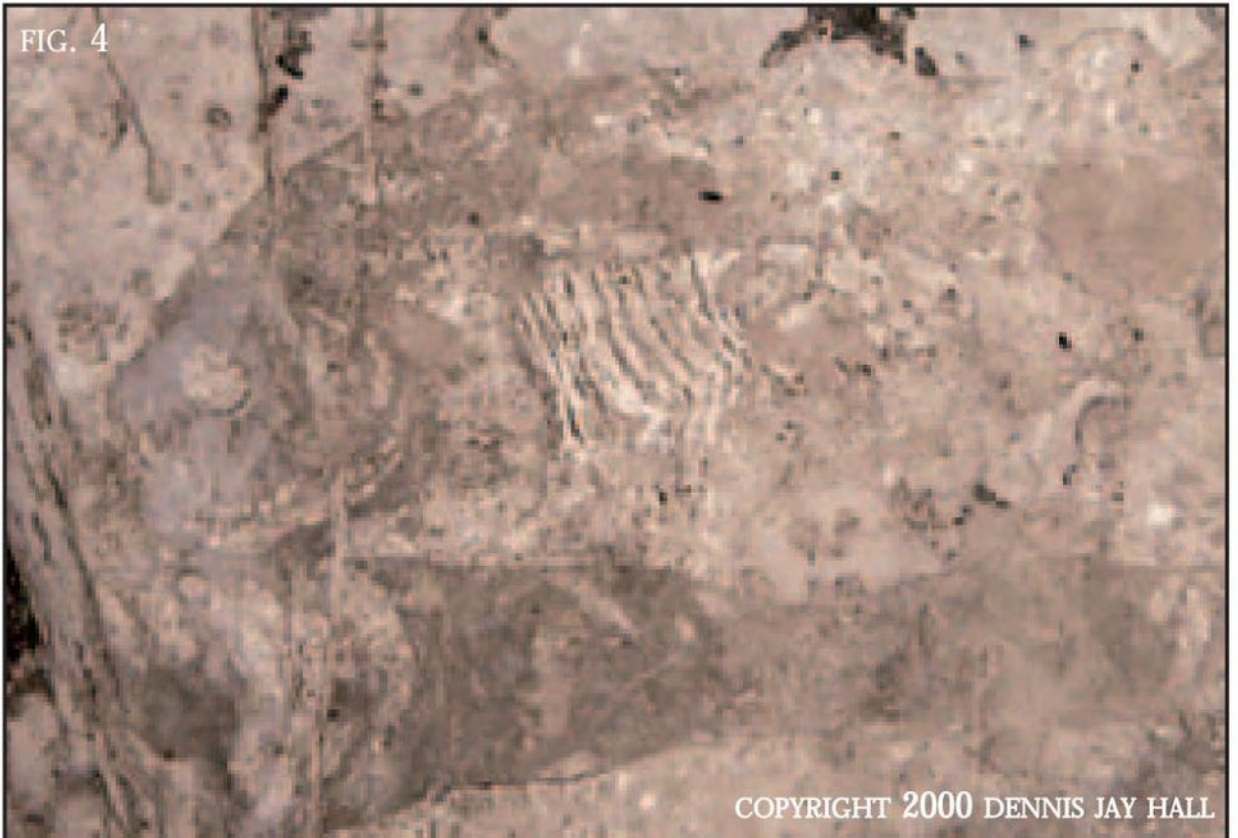


COPYRIGHT 2000 DENNIS JAY HALL

CLOSEUP OF A BLUE-GREEN ALGAE BLOOM - LAKE CHAMPLAIN - AUGUST 1999

FISH FOSSIL- DISCOVERED BY THE AUTHOR - LAKE CHAMPLAIN

FIG. 4



COPYRIGHT 2000 DENNIS JAY HALL

NEW EVIDENCE DUG FROM THE PAST

“INDIAN ROCK”

“INDIAN ROCK”

On page 590, of the *History of Eastern Vermont*, written in 1858, by Benjamin H. Hall, is an illustration titled “Indian Rock.”

This rock was dug out of a river bank by workman over one hundred and forty years ago, under the careful direction of B.H.Hall.

It is the first solid evidence that I have seen that tells me that the native people were well aware of these animals, and that the ancient range of the *Champtanystropheus* may have extended up the Connecticut River Valley.

In his examination of this ancient work of art, Hall gives his interpretation of the strange, deeply carved, figures on the rock.

“*TWO BEAR A RESEMBLANCE TO SNAKES*”

One image that caught my attention, Hall describes with somewhat the same clarity as many eyewitness accounts of modern day Champ sightings,

“*.. AND ONE CONVEYS NO IDEA EITHER OF BIRD, BEAST, OR REPTILE.*”

On the next page I have reproduced the “Indian Rock” illustration as it appeared in Hall’s *History of Eastern Vermont*.

FACING PAGE... Hall’s written description of the Indian Rock.



FIG. 5

BENJAMIN HALL'S DESCRIPTION OF THE "INDIAN ROCK"

DOES THIS ROCK STILL EXIST?

A SPRING EXPEDITION BY CHAMP QUEST WILL ANSWER THE QUESTION. VISIT WWW.CHAMPQUEST.COM FOR UPDATES.....

On the south bank of the Wantastiquet or West River, in the town of Brattleboro, is situated the "Indian Rock." Its location is about one hundred rods west of the point of junction of the Wantastiquet and Connecticut Rivers. It lies low, and during a part of the year is covered with water, or with sand and dirt, the deposit of the river.

On first examining this rock, the figures on the upper part of it were alone visible. Just below them, the rock was covered with earth to the depth of six feet.

The earth was removed, until a surface measuring ten feet in width, and eight feet in height, was exposed. At the point where the workmen ceased digging, the rock was still three feet in the earth.

The whole surface of the rock, upon closer scrutiny, was found to be covered with inscriptions. Among these, the date 1755 was to be distinguished. The two figures in the upper corner of the engraving, and on a line with one another, are each eight inches in height, and six inches across, measuring from the extremities of the lateral appendages.

Of the ten figures here presented, six are supposed to designate birds, two bear a resemblance to snakes, one is not unlike a dog or a wolf, and one conveys no idea either of bird, beast, or reptile.

During the Champ flap of the late 1970's early '80's, new evidence for the existence of these animals was fueled by a photograph. Sandra Mansi released her famous photo of Champ. Laws were passed in Vermont and New York protecting the animals, now known as Champ. Serious scientific inquiry was encouraged and written into law.

During that time period, in perhaps an attempt to heighten the media surrounding Champ, it was written that Samuel de Champlain had seen the monster during his 1609 expedition to Lake Champlain. Research has shown this to be false. Champlain describes in detail the Gar Pike, and records Indian anecdotes surrounding its mystical powers, but makes no mention of Champ.

New evidence from the past suggests that the written record of Champ goes as far back in time as the Indian legends recorded by Champlain.

The Connecticut River was first seen by European eyes in 1586. It was not until 1614 that Adrian Block sailed 60 miles upstream in a voyage that paved the way for future generations.

Many rocks with strange images chiseled into them were found by the first settlers and mostly ignored. Some of the better examples (easy to get to) made their way into the history books and became quite famous; such as the rock images at Bellow's Falls, Vermont.

It was my love for history that led to the re-discovery of the image uncovered by Hall and his workman that bore a resemblance to a modern day creature we call Champ.

On the next few pages I compare two of the carved images with the photographs I have taken of Champtanystropeus, and skeletal remains and illustrations of Tanystropeus.

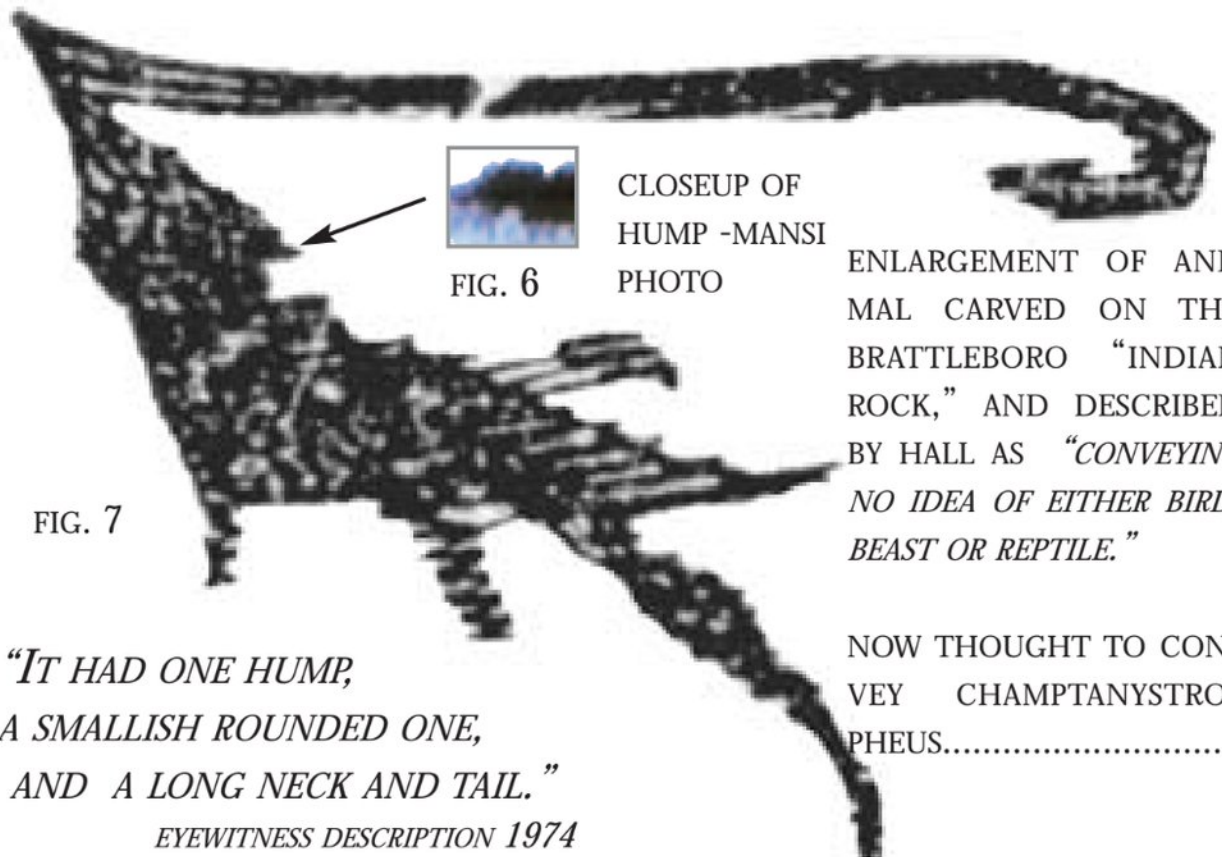


FIG. 7

FIG. 6

CLOSEUP OF
HUMP -MANSI
PHOTO

ENLARGEMENT OF ANI-
MAL CARVED ON THE
BRATTLEBORO "INDIAN
ROCK," AND DESCRIBED
BY HALL AS "CONVEYING
NO IDEA OF EITHER BIRD,
BEAST OR REPTILE."

*"IT HAD ONE HUMP,
A SMALLISH ROUNDED ONE,
AND A LONG NECK AND TAIL."
EYEWITNESS DESCRIPTION 1974*

NOW THOUGHT TO CON-
VEY CHAMPTANYSTRO-
PHEUS.....

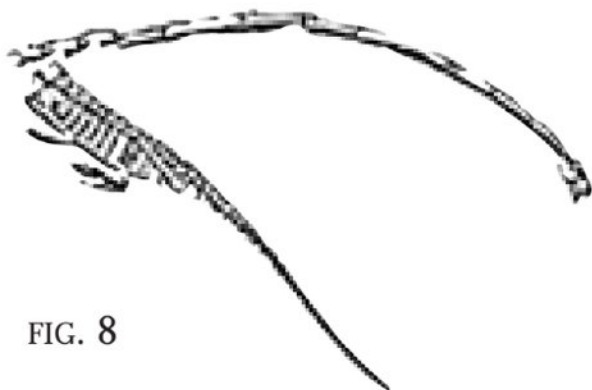


FIG. 8

SKELETON ILLUSTRATION WITH
DIGITAL RECONSTRUCTION
APPLIED TO NECK.

FOSSILIZED REMAINS OF TANYS-
TROPHEUS.

NECK WAS MOST LIKELY TWISTED
IN A FINAL POST-MORTEM MUS-
CLE SPASM FOR WHICH REPTILES
ARE NOTORIOUS.

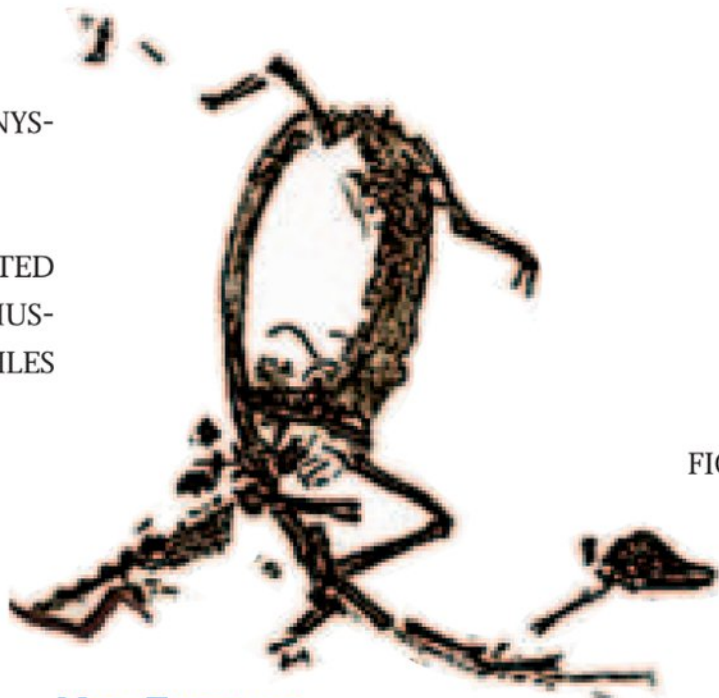


FIG. 9



FIG. 10

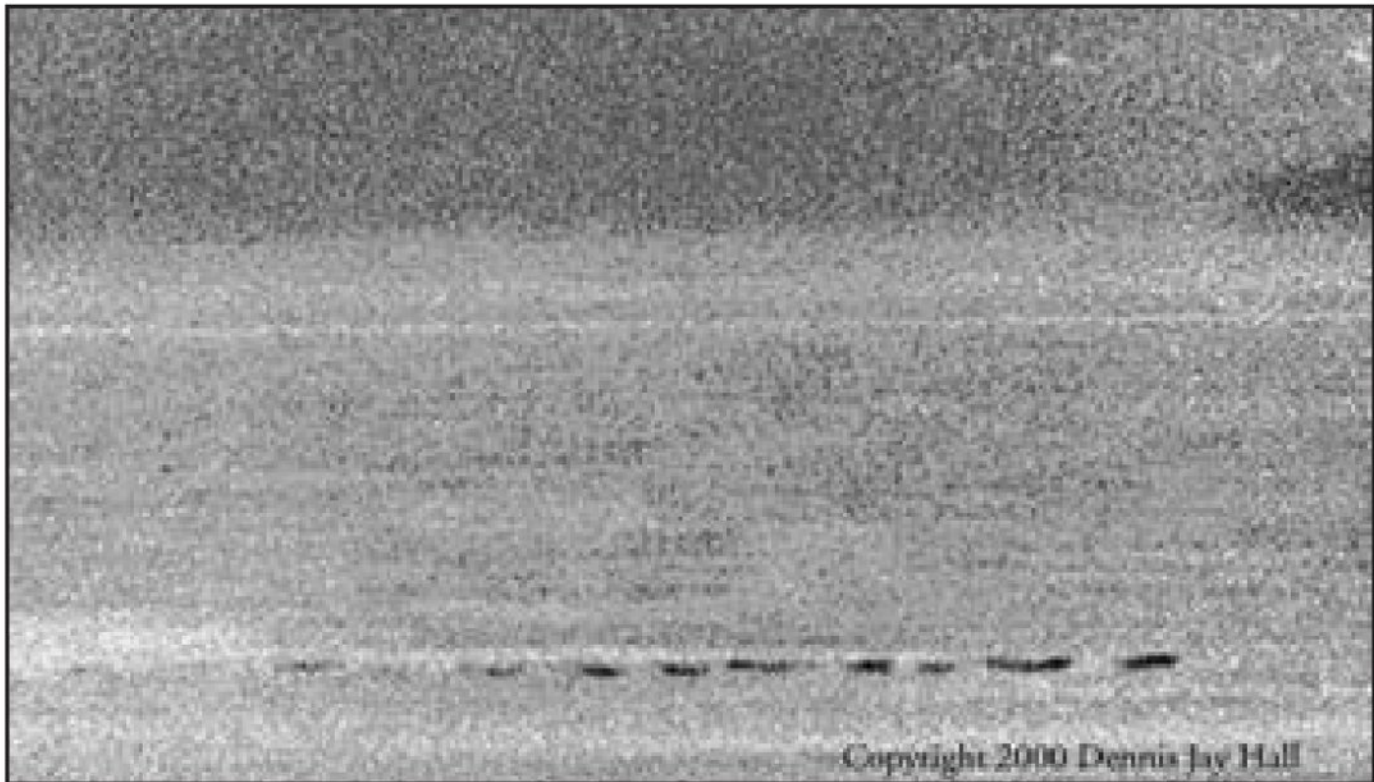
ENLARGEMENT OF THE SERPENT - LIKE ANIMAL CARVED ON THE INDIAN ROCK

FIG. 11



ENLARGED AND REVERSED IMAGE OF THE SERPENT - LIKE ANIMAL I
PHOTOGRAPHED AT BUTTON BAY IN JULY OF 1993

FIG. 12



WHILE ON WATCH THE EVENING OF JULY 4, 1993 THE ABOVE ANIMAL SUR-
FACED ABOUT 150 YARDS OFFSHORE. THIS PHOTO IS #4 OF FOUR PHOTOS
I MANAGED TO SNAP DURING THE 10 SECOND SIGHTING.

ZEBRA MUSSELS &
BLUE-GREEN ALGAE: TEAM PLAYERS

YELLOW PERCH GETTING FAT ON ZEBRAS
LAKE GEORGE DEADLY FOR ZEBRA MUSSEL BABIES

STOP



ZEBRA MUSSEL

THE SPREAD

ZEBRA MUSSELS & BLUE-GREEN ALGAE: TEAM PLAYERS

Do you know when and how the first Zebra Mussel got to the U.S.?

"IT IS BELIEVED THAT THE ZEBRA MUSSEL WAS AN UNKNOWN STOWAWAY IN THE FORM OF LARVAE IN A SHIP'S BALLAST WATER ON THE WAY FROM EUROPE TO NORTH AMERICA. ANOTHER POSSIBILITY SUGGESTED BY OTHER SCIENTISTS, THOUGH NOT BELIEVED BY MOST, IS THAT ADULT ZEBRA MUSSELS WERE ABLE TO ATTACH THEMSELVES TO THE SHIP'S ANCHOR OR COILS OF ROPE THAT REMAINED MOIST ENOUGH THROUGHOUT THE VOYAGE FOR THE MUSSELS TO SURVIVE.."

RAM, NATALIE. (1996) *FROM RUSSIA WITH LOVE*. C.P. ALLEN HIGH SCHOOL, BEDFORD, NOVA SCOTIA

The zebra mussel is a small freshwater mollusk, native to the Caspian and Black Sea region of Eurasia. In 1988, this prolific mussel was first identified in the United States in Lake St. Clair of the Great Lakes region. Since then, zebra mussels have spread throughout the interconnected waterways in the eastern U.S. and were confirmed in Lake Champlain during the summer of 1993.

It does not matter how, nor when the zebra mussel first made it to North America. They are HERE and will forever change the Lake Champlain Basin, as we know it. Our children will know a different Lake Champlain. One void of the native mussels, whose tracks in the sand we marveled at; void of the nutrients needed to sustain the fish that we grew up catching, off the end of the dock. The beaches already stink with the rot of millions of dead zebra mussels. If this sounds like the end of a futuristic horror novel, read on, you will find that it is just the beginning the setting is Lake Champlain.

KNOWN FACTS:

- Zebra mussels attach themselves to the hulls, engines and other submerged parts of moored vessels.
- Zebra mussels can have numerous ecological impacts. Most significantly, the mussels are extremely efficient filter-feeders, consuming large portions of the microscopic plants and animals which form the base of the food chain. Over time, this feeding behavior can effect a lake's entire ecological balance, causing significant shifts in native species' populations.
- Each female zebra mussel can lay up to one million eggs during the summer months when water temperatures rise above 50°F.
- Colonies of adults can attain densities of up to 700,000 individuals per square yard.
- Zebra mussels generally live for two years in North American waters, but can survive for as long as 4-5 years.
- Zebra mussel feces can turn a body of water into an ammonia and *PHOSPHORUS* rich environment.

IS THIS THE BEGINNING OF THE END?

I wish there was something positive to say about zebra mussels. There is not. Every fish, reptile, amphibian, bird, and mammal, including humans, will eventually be effected by the devastation caused by the introduction of zebra mussels.

All water in Vermont eventually flows into five drainage basins. Three of these basins flow into rivers; the other two empty into Lakes Champlain and Memphremagog. Together, these two lakes drain more than half the land area of Vermont, their watersheds reaching from Island Pond in the Northeast Kingdom to the headwaters of the Mettawee River in Bennington County. Zebra mussels will eventually work their way up the streams, disrupting all life.

What effect the mussels will have on our lakes and rivers can only be attained from studies done on bodies of water to our west.

Lake St. Clair, a mere puddle compared to the Great Lakes, should have been isolated eleven years ago when the first zebra mussels in North America were found there. For an example of what to expect we can look at the dramatic change in the water quality of the Seneca River, N.Y., a major tributary to Lake Ontario, that has been brought about by zebra mussel infestation. The infestation converted the river from a turbid, *PHYTOPLANKTON-RICH*, nutrient-rich system, with nearly saturated oxygen concentrations, to a system with high clarity, low phytoplankton concentration, depleted of nutrients, with greatly under saturated oxygen concentrations. Dramatic increases in the concentrations of ammonia and soluble reactive phosphorus were observed across the study section. These were attributed to direct excretion by the mussels and decomposition of mussel feces.

Translation: *Zebra Mussel poop has turned the water to ammonia.*

Despite all the depressing issues surrounding zebra mussels, there does exist a ray of hope. *ENDOD*, the African soapberry, *Phytolacca Dodecandra*, has been found to be an effective molluscicidal agent when used as an aqueous suspension of the powdered berries. Mussels not dead within twenty-four hours of the effective exposure time, of between four and eight hours, enter a state of irreversible, physiological response resulting, ultimately, in death or a great reduction in their ability to attach and cluster to the water intake pipes and grating systems of power and water treatment plants and other submersed objects to which they attach.

The patented method has been tested and proved to be effective in prototype applications in a controlled laboratory environment. An EPA field testing permit has been applied for and on-site testing in an industrial water control management application, is being organized with a major electrical power transmission station.

The inventors of this method of control are Harold H. Lee, Ph.D., Professor of Biology, The University of Toledo, Peter C. Fraleigh, Ph.D., Professor of Biology, The University of Toledo and Aklilu Lemma, Sc.D., Visiting Professor of Biology, Johns Hopkins University.

The official names of these inventions are "Method of Controlling Zebra Mussels With Extract of *Phytolacca Dodecandra*" and "Method of Controlling Zebra Mussels." These University of Toledo technologies have been awarded U.S. Patent #'s. 5,252,330 issued 10/12/93, and 5,334,386 issued 08/02/94, respectively. The University of Toledo is currently seeking a license to commercialize specific fields of use.

Let's hope they obtain it and soon! By the end of 2000, zebra mussels will have caused \$2 to \$5 billion in damage within the Great Lakes region and its tributaries. Add the Lake Champlain basin to the price tag and the cost will be staggering.

The most important thing that all Vermonters and visitors can do, is prevent the spread of zebra mussels to other bodies of water. In order to do this, we must learn about the mussel, how it spreads, how to identify it, and the threat it poses, and most importantly, share this information with others.

CHAMP QUEST IS ASKING, BEFORE IT IS TOO LATE, FOR THE STATES OF VERMONT AND NEW YORK TO MAKE IT MANDATORY FOR EVERY STUDENT IN EVERY GRADE TO BE MADE AWARE OF THE CHANGES ZEBRA MUSSELS WILL MAKE IN THEIR LIVES IF NOT STOPPED.

WHEN THE STUDENTS COME HOME FROM SCHOOL, AND THE PARENTS ASK, "WHAT DID YOU LEARN TODAY?", THE MESSAGE WILL SPREAD TO THE REST OF US.

The State of Vermont is very serious in its efforts to halt the spread of these invaders and has drafted a first line of defense. It is an all volunteer army. Perhaps it's time to resurrect the *SPIRIT* of the Green Mountain Boys, for the enemy, again, has come from New York... if only Ethan Allen were here!

Below is a list of suggested tasks that Zebra Mussel Citizen Action Program (ZMCAP) Task Forces can perform:

- Sponsor a Zebra Mussel presentation/ZMCAP training workshop.
- Take Part in the Zebra Mussel Watch Program (specific instructions available) to monitor for zebra mussels at sites around the perimeter of the water body.
- Organize a volunteer task force to participate in ZMCAP.
- Post and maintain "Attention Boaters" signs at all public and heavily used private accesses to the water body. Available at the Vermont Department of Environmental Conservation.(VTDEC)
- Survey boaters at public boater accesses, to help assess lake vulnerability to the infestation of zebra mussels. Survey forms available from VTDEC at (802)-241-3777.
- Patrol accesses, especially during busy periods, to advise boaters, angler and other water users of the zebra mussel threat and to assist them in inspecting and cleaning their equipment.

- Report any zebra mussel sightings (other than Lake Champlain) to VTDEC at (802)-241-3777.
- Educate the community by conducting zebra mussel presentations/workshops to raise awareness about zebra mussels, their potential impacts, and controls.
- Arrange for zebra mussel information and articles to be included in organization newsletters and community newspapers.

Distribute and maintain supplies of zebra mussel informational materials at municipal buildings (i.e., library, town office, etc.), retail businesses, campgrounds and other public facilities within the community.

THESE MATERIALS ARE AVAILABLE FREE. CALL (802)-241-3777.

Immediate Action that must be taken:

- Inspect boat, trailer, and other recreational equipment carefully for mussels and aquatic vegetation. Remove and discard in the trash.
- Drain all water from boat, including bilge, live well and engine cooling system, and other recreational equipment that might trap water.
- Dry boat and trailer in sun for at least two days or if using boat sooner, rinse off boat, trailer, anchor, anchor rope and chain, bumpers, engine, etc... with tap water or at a car wash.
- Leave live aquatic bait behind - either give to someone using the same body of water, or discard in the trash.

THREE MORE VERMONT LAKES INFESTED:

In 1999 three additional lakes were found to be infested. Lakes Dunmore, Bomossen and Hortonia, all located in the west central part of the state, are the latest victims of the Zebra Mussel.

ONLY YOU CAN PREVENT THE SPREAD OF ZEBRA MUSSELS

ZEBRA MUSSELS HELP YELLOW PERCH GROW

Zebra mussels may not be that bad after all. An Oakland University graduate student has proven that the fresh water crustaceans help increase the yellow perch population by improving the habitat of insect larvae, snails and leeches--favorite food of perch.

Sarah Thayer and other researchers kept cages of young yellow perch at the bottom of an experimental pond next to Lake St. Clair near Mt. Clemens, Michigan. Zebra mussels, put in some of the cages, filtered organic matter and deposited the remainder on the pond floor. Invertebrates, able to grow in that matter, then were eaten by the yellow perch. Perch in the cages with zebra mussels grew faster than those in cages without the mollusks.

"This is probably better news for fishermen than it is for those who live near the water. Because the zebra mussels improve organisms living on the bottom, yellow perch have more to feed on. For those who fish, that means the perch will grow better in lakes with zebra mussels. For homeowners, there is an esthetic bonus because the mussels help clear up the water. On the other hand that allows increased weed growth in the water."

Sarah Thayer

"But as a fisherman, I get excited because I have seen changes in the lake," he said. "The perch are getting larger and they're increasing in number."

Randy McConnell

"There are positive and negative points to the study," explained Don Schloesser, fisheries biologist for the Great Lakes Science Center in Ann Arbor. "Zebra mussels help clean the water, which may be good for the perch, but not necessarily good for walleye, because they don't like clear water."

LAKE GEORGE: DEADLY FOR YOUNG ZEBRA MUSSELS

Zebra mussel larvae, the offspring of the invasive species that has plagued lakes around the country for the past five years, die in New York's Lake George, report scientists from Rensselaer Polytechnic Institute.

The researchers from the Rensselaer's Darrin Fresh Water Institute believe that calcium levels in the lake are too low for newborn zebra mussels to mature.

Unfortunately, older zebra mussels are able to survive in Lake George, said Sandra Nierzwicki-Bauer, professor and chair of biology at Rensselaer. But when larvae less than two weeks old are placed in the lake's water they all die within seven days.

While it is good news that newborns are unable to survive in Lake George, mature zebra mussels can enter the lake aboard boats, bait buckets, aquatic birds and by other means, said Nierzwicki-Bauer.

These adults could survive and live five to eight years. Over time, these mature mussels could produce offspring that adapt to the lake's low-calcium conditions, Nierzwicki-Bauer said.

Scientists know that calcium is an important nutrient for maturing mussels, but they have assumed that a level of 12 milligrams per liter, as found in Lake George, would be adequate. That level is adequate for the development of mussels that have survived the first few weeks of life.



FULL BLOWN ALGAE BLOOM-----BUTTON BAY, VT.

NOTES:

When a lake is infested with zebra mussels, an unusual bloom of blue-green algae scum called [microcystis](#) often follows. Zebra mussels invade lakes most used by people, and microcystis can produce [toxins](#) potentially harmful to wildlife and people.

Blue-green algae is one of the earliest life forms that [paleontologists](#) have found on this planet. But blue-green algae is different! It's unique! It's actually [bacteria](#)! See, most living things have cells, and each cell has a nucleus. Except... blue-green algae!!! This algae has cells, but it doesn't have a nucleus, so it's called a [prokaryote](#). But from that prokaryote, all life on earth formed.

The mussels eat virtually everything they can filter -- except for microcystis, which they spit out. The theory is that the mussels help foster a blue-green algae bloom by reducing competing algae. That can mean trouble. Microcystis actually is a bacterium. It occurs naturally in most lakes at low concentrations. But large blooms are cropping up in lakes that don't normally have them.

Lake Champlain is undergoing major changes. It is not the first time major events have changed the Champlain Valley but it is the first major event that has been the direct result of man.

Lake Champlain as we know it has existed for 12,000 years, but the valley it flows through is among the oldest on the planet.

Lake Champlain has unusual characteristics. It occupies a long, deep, and narrow valley; it has a northerly flow; and for a period after the glaciation the lake was marine. It then became the sixth largest lake in the United States. Lake Champlain may have the largest shore development index of any lake in the United States.

The lake occupies a north-south fault zone, and extends 174 km from Whitehall, N. Y. to its outlet in Canada. The lake flows northerly through its outlet, the Richeleau River, into the

St. Lawrence River near Montreal. The drainage basin of the lake includes portions of the States of New York and Vermont and the Province of Quebec in Canada.

The basin was overridden by the Wisconsin glaciation during the Pleistocene. As the ice melted towards the north, it left a freshwater lake in its path. Thus, Lake Vermont was formed and flowed south through the Hudson valley. When the ice retreated north of the St. Lawrence Valley, the Champlain basin was inundated with salt water, forming the Champlain Sea, which also flowed to the south. The marine incursion ended when the land to the south started to rebound; eventually enough to change the direction of the water flow to that of north. The present day Lake Champlain was born when the first waters within this ancient north-south trough flowed north. By 12,000 years ago Lake Champlain had made the transition from salt water to fresh.

The glacial rebound to the north continues to this day. Lake Champlain is slowing down. It presently flows at a rate of 3 m.p.h., and as a result, a complex and irregular lake basin with drowned valleys to the east and shear cliffs to the west, has been created.

The changes occurring in Lake Champlain today are not as visible as the physical scars left on the surface by a mile high glacier, but the end result will be as permanent.

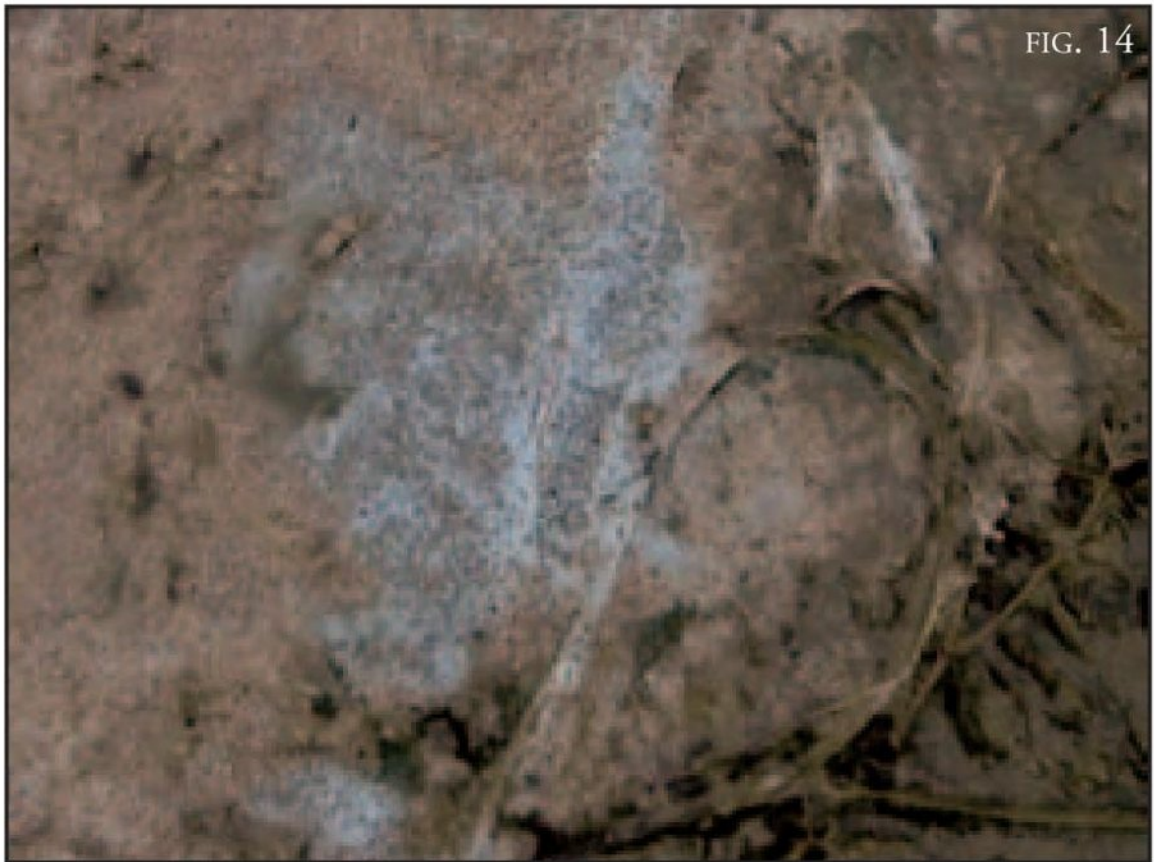
Once a lake is infested with zebra mussels, native species must adapt or perish. This period of adapt or perish started four years ago in Lake Champlain, and the toll so far on the native clam population has been devastating; they will soon perish.

What is known is that during the summer of 1999 five dogs are dead; cause? Blue-Green Algae!!!

At this point in time there are more questions than answers.

WHAT WE DO KNOW IS:

- * **MICROCYSTIS** CAN CREATE TASTE AND ODOR PROBLEMS IN DRINKING WATER. IN ADDITION, SOME FILAMENTOUS BLUE-GREEN ALGAE ARE THEMSELVES ODOR PRODUCERS.



CLOSE-UP OF AN ALGAE BLOOM - VERY PRETTY ALSO VERY DEADLY

- *MICROCYSTIS, OTHER ALGAE AND AQUATIC PLANTS, INCLUDING FILAMENTOUS ALGAE, CAN ALSO BE LINKED TO TASTE AND ODOR PROBLEMS.

- *BECAUSE ZEBRA MUSSELS CLEAR THE WATER OF PARTICLES, MORE LIGHT REACHES THE BOTTOM ALLOWING THESE ALGAE TO GROW BETTER.

- *FOR EXAMPLE, MACROPHYTES HAVE INCREASED DRAMATICALLY IN LAKE ST. CLAIR SINCE THE ZEBRA MUSSEL BECAME ESTABLISHED.

*ZEBRA MUSSELS FILTER THE WATER WHETHER OR NOT MICROCYSTIS IS PRESENT, BUT THEY SPIT MICROCYSTIS BACK IN TO THE WATER WHILE AT THE SAME TIME EAT OTHER ALGAE.

*AT THE SAME TIME THIS SELECTIVE FEEDING PROCESS IS OCCURRING, THE MUSSELS ARE EXCRETING NUTRIENTS (PHOSPHATE AND AMMONIA) AS PART OF DIGESTION AND METABOLIC PROCESSES.

*THESE NUTRIENTS, IN TURN, SERVE TO FERTILIZE FURTHER GROWTH OF MICROCYSTIS.

*A MAJOR QUESTION IS WHETHER NUTRIENTS EXCRETED BY MUSSELS ARE A MAJOR PROMOTER OF MICROCYSTIS BLOOMS.

*ZEBRA MUSSELS HAVE FUNDAMENTALLY ALTERED ECOSYSTEM PHOSPHORUS CYCLING SO IT BECOMES AVAILABLE FOR SUMMER BLOOMS.

CHAMPTANYSTROPHEUS

NOTE:

I HAVE GLEANED ENOUGH FIRST HAND INFORMATION THROUGH MY SIGHTINGS OF THESE REPTILES TO FORM A BASELINE HYPOTHESIS AS A STARTING POINT FOR POSITIVELY IDENTIFYING THESE SHY REPTILES THAT INHABIT LAKE CHAMPLAIN.

THERE IS NOTHING OFFICIAL ABOUT THE NAME CHAMPTANYSTROPHEUS, NOT YET. IT IS, THE NAME I HAVE GIVEN TO THE SPECIES, AND IS BASED ON MY THEORY THE ANIMALS ARE RELATED TO A FAMILY OF VERY EARLY REPTILES CALLED TANYSTROPHEUS.

LIKE I SAID, THIS IS A STARTING POINT, BUT ONE THAT I SPENT THIRTY YEARS REACHING....

CHAMPTANYSTROPHEUS



FIG. 15

Champtanystropheus is the name I have given to the species of animals known as Champ. Twenty sightings of these animals have led me to believe they are members of the *TANYSTROPHEUS* family. Tanystropheus in turn is a member of the Protorosaurs family which are members of the Archosauromorph family and they all pre-date the *ARCHOSAURS*, better known as Dinosaurs.

Tanystropheus has sharp teeth. These teeth are those of a hunter. Other features of its body indicate that it has adapted for aquatic life. It may well be an ambush predator, using its long neck to lunge at small fish. This is just what *PLESIOSAURS* did to catch their prey.

When first discovered in 1886, Tanystropheus was identified as the *PTEROSAUR* "Tribelesodon". The neck bones were mistaken for wing bones and this mistake was not corrected until 1929.

Today, there are at least two dozen specimens known, nearly all are in European museums or private collections.

The purpose of a long neck has remained a mystery, but one solution presented by scientists is that tanystropheids fought for dominance. Others thought it would lie in ambush and snap out and catch its unsuspecting prey.

I have not seen them fight for dominance, not yet. I do think they snap out and catch prey, similar to a snapping turtle. I have witnessed the long neck used as a tool (percussion) to stun its prey by slapping the neck on the surface. The fish not consumed regained their senses and swam away unharmed.

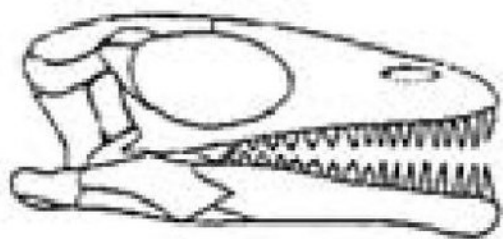


FIG. 16

Very young tanystropheids have short necks.* THE TEETH OF JUVENILES ARE TRIPLE-POINTED, SUGGESTING A DIET OF INSECTS. The neck of juveniles is more pronounced than at birth.

During the summer of 1993, two women were wading in the clear shallow water of Button Bay. To their amazement an animal, which they were unable to identify, swam between them. One of the women, an architect and artist, has supplied this sketch of what they saw.

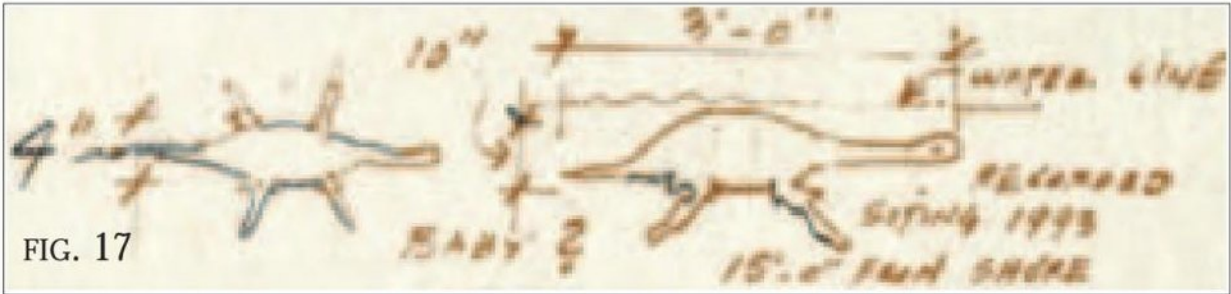
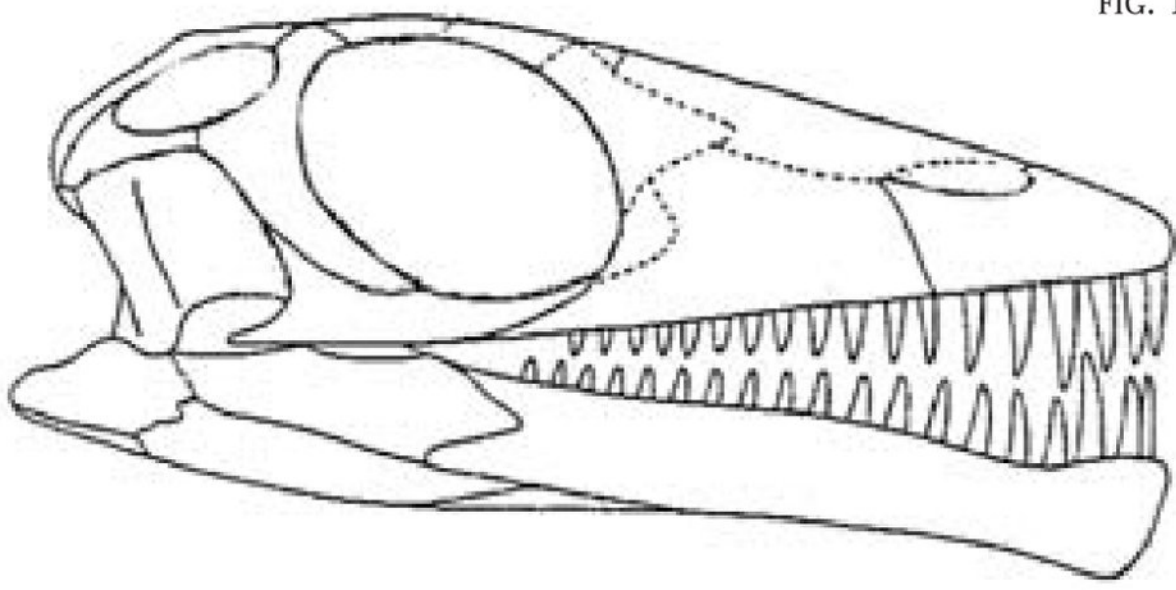


FIG. 17

SKETCH OF “BABY” SEEN IN BUTTON BAY

*BASED ON PERSONAL OBSERVATION

FIG. 18



THE TEETH OF THE ADULT TANYSTROPHEUS ARE LONG AND POINTED SUGGESTING A DIET OF SMALL FISH - PERCH, SMELT, ECT..

IT IS FACT THAT LIVE BEARING (DO NOT LAY AN EGG) REPTILES ARE FOUND IN ONLY COLD CLIMATES. I THINK THAT CHAMPATANY IS A LIVE BEARING REPTILE. SHE MOST LIKELY GIVES BIRTH IN THE LATE SUMMER - EARLY FALL - DURING THE LOW WATER. BIRTH IS GIVEN IN THE BACKWATERS AMONGST THE BUTTONWOOD; IMPREGNABLE DURING LOW WATER BY ANYTHING OTHER THAN MAMA , BABY AND THE BIRDS & BEES.



THE LENGTH OF PEDAL DIGIT FIVE IS ELONGATED, AS IN PTEROSAURS.

FIG. 19

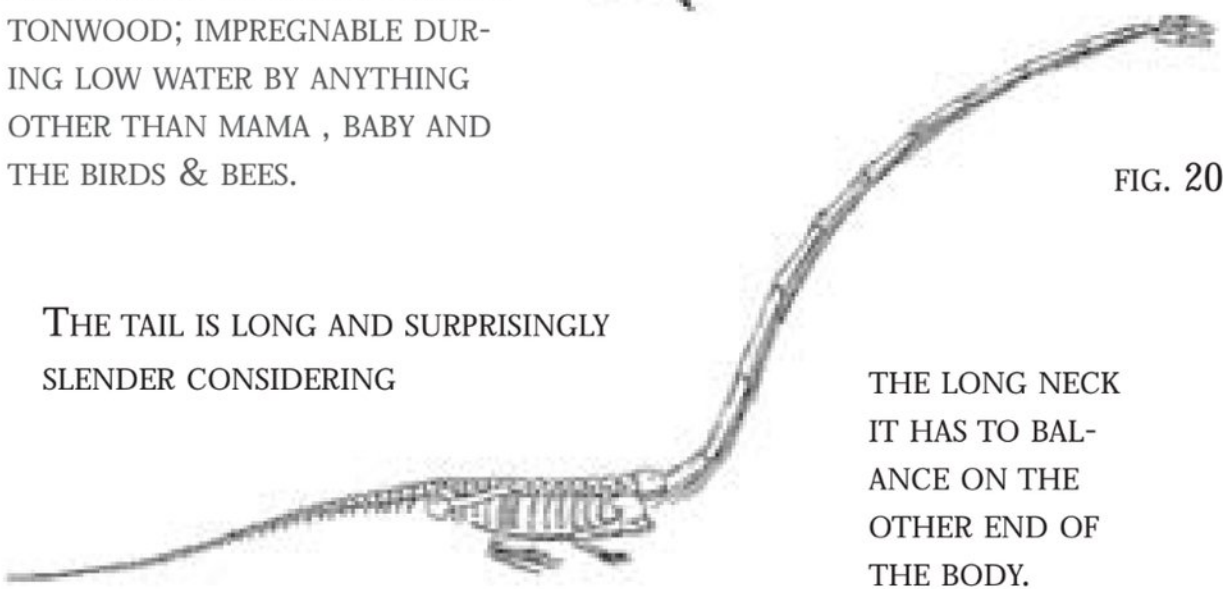


FIG. 20

THE TAIL IS LONG AND SURPRISINGLY SLENDER CONSIDERING

THE LONG NECK IT HAS TO BALANCE ON THE OTHER END OF THE BODY.

TANYSTROPHEUS

THE NECK IS SUPPORTED BY OVERLAPPING RIBS. THIS COMBINED WITH MUSCLE ALLOW THE ANIMAL TO HOLD ITS NECK WELL ABOVE THE BODY.
I KNOW THIS AS FACT; GLEANED FROM A VERY CLOSE ENCOUNTER.....

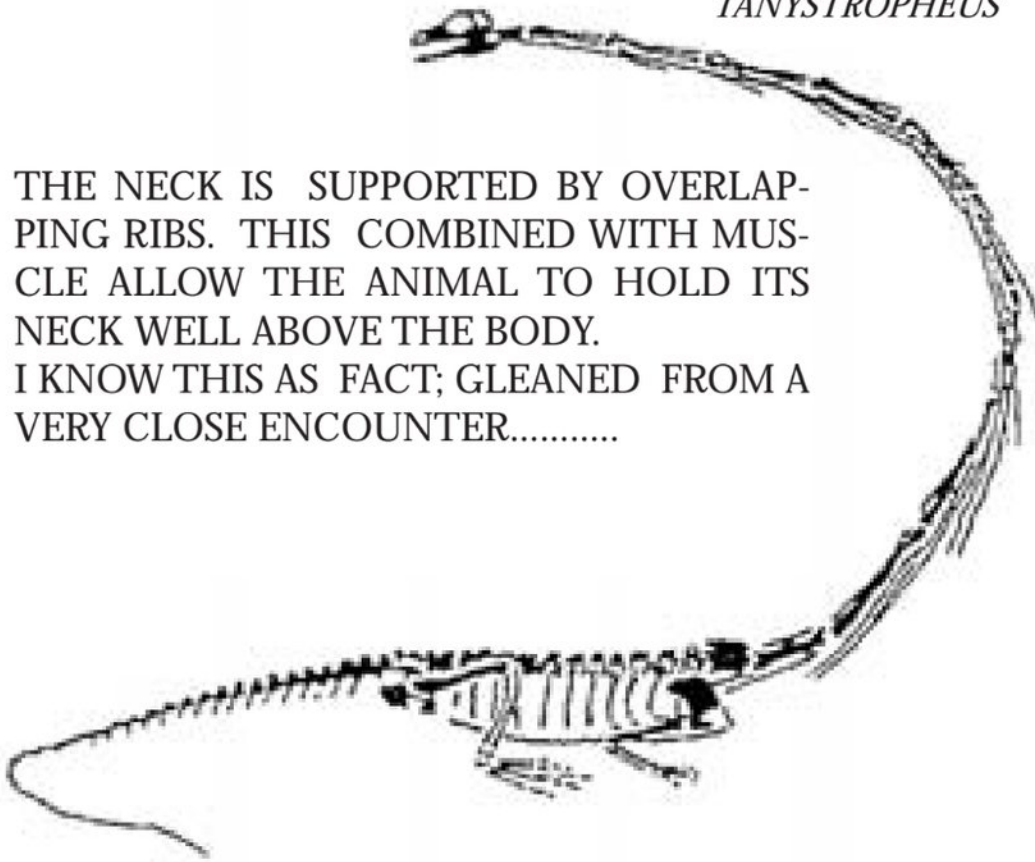
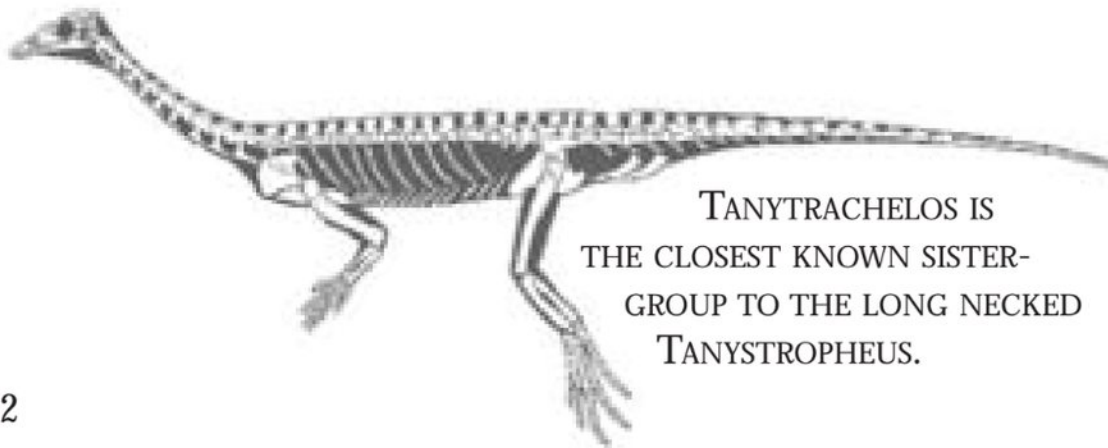


FIG. 21



TANYTRACHELOS IS
THE CLOSEST KNOWN SISTER-
GROUP TO THE LONG NECKED
TANYSTROPHEUS.

FIG. 22

Both have 12 cervical vertebrae. Like pterosaurs, Tanytrachelos has procoelus (socket in front, ball in back) cervicle vertebrae and a large fused sternum. The post-cloacal bones are double paired and huge. This small, short-tailed prolacertiform is known from a number of crushed, articulated specimens preserved as compressions on siltstone. The fossilized remains have been found in North Carolina and Virginia.

The Macrocnemus is described as being closely related to the Tanystropheus but much smaller in size. The animal is thought to have been fairly mobile on land; where it might have spent considerable time chasing insects and grabbing them with its mouth. The large number of specimens of different age classes of both Macrocnemus and Tanystropheus indicates that their elongated necks are a function of *allometry*, that is, the necks grew at a rate faster than the rest of the body.

With this in mind one can imagine that a series of sightings in an area could be a

lanky juvenile going through a growth spurt, and acting a little awkward as a result of its fast growing neck.

BIRTHING HABITS

One of the mysteries of reptilian reproduction is why some species reproduce by laying eggs (oviparity); and some by giving birth to well formed babies (viviparity). The live bearers are generally larger than the egg layers.

In all reptiles, the females ovulate their large yolky follicles in late springtime. These are immediately fertilized internally by sperm that they have stored either for a week or two (in spring-mating, species) or throughout the entire winter (in fall mating species).

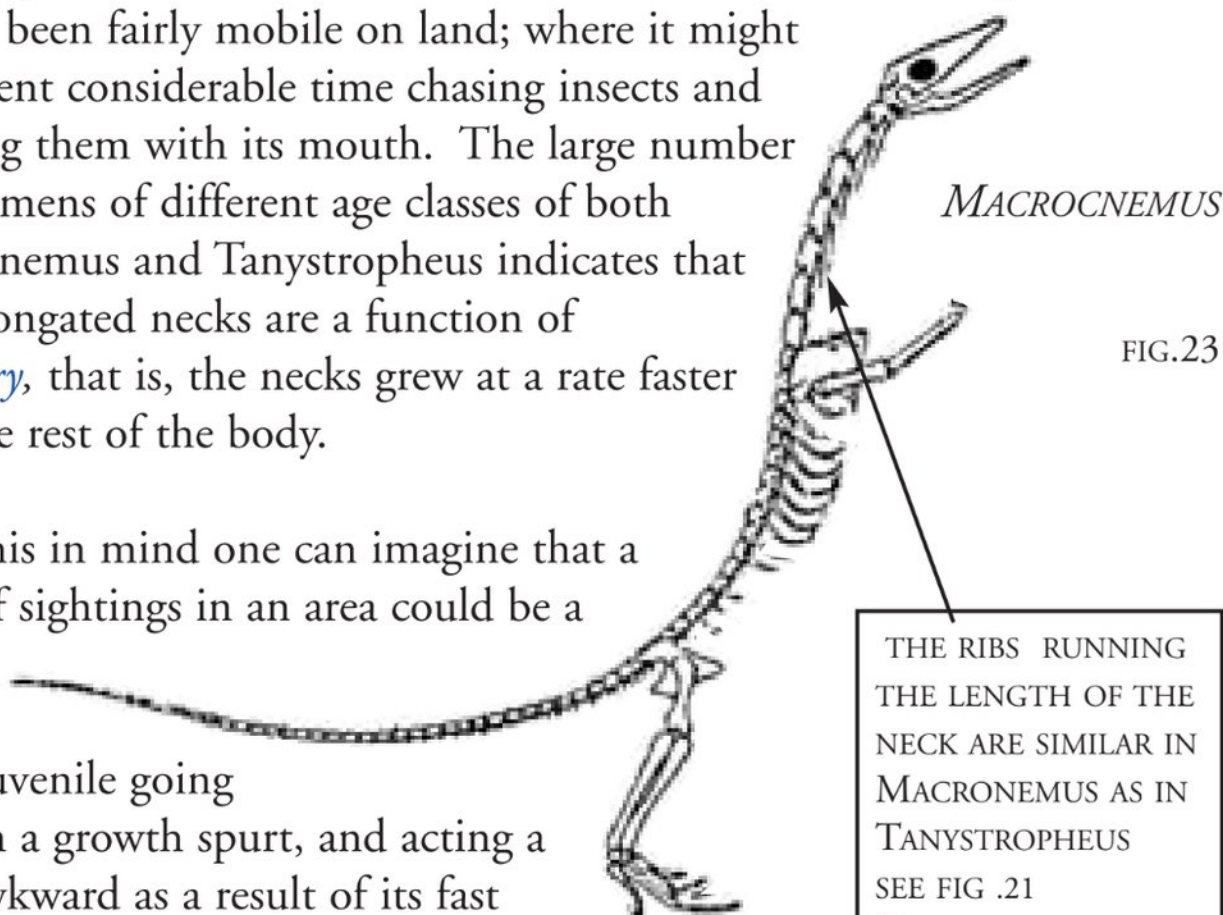


FIG.23

THE RIBS RUNNING THE LENGTH OF THE NECK ARE SIMILAR IN MACROCNEMUS AS IN TANYSTROPHEUS SEE FIG .21

THE SET OF RIBS EVIDENT IN TANY AND MACROC ARE ESSENTIAL IN ORDER TO EXPLAIN THE BEHAVIOR I HAVE SEEN THESE ANIMALS EXHIBIT. THEY ARE CAPABLE OF HOLDING THEIR NECKS UPRIGHT WHILE WALKING. ALSO, OF LIFTING THE NECK RIGIDLY OUT OF THE WATER. THE RIBS RESPOND IN SOMEWHAT THE SAME MANNER AS A FISHING ROD.

In live-bearing species, the females retain membranous eggs without shells inside their oviducts.

The soft leathery shells of reptile eggs are much more permeable to water than are the brittle eggs of birds; thus, egg layers need to deposit their eggs in moist environments. Because of this water uptake, reptile eggs swell to twice their initial size as they develop.

Pregnant females of live-bearing species are grossly distorted by the end of the gestation period.

Viviparous females can keep their babies much warmer, so they develop more quickly. Live bearing females usually give birth to living young in late summer or early fall, at least a month before the eggs of their oviparous cousins, turtles, snakes ect., will hatch.

Tanystropheus is known to have been a live-bearing reptile.

SEARCH TIPS

SEARCH TIPS

We are not the first people of the Champlain Valley to marvel at the animals that live among us. This valley has been continuously inhabited by Homo Sapiens a minimum of 12,000 years. That is a very long time. Think about it. We have been a free country 225 years and look what we have accomplished. What we gonna do the next 11,775 years???

Champtanys know what they will be doing, an art they have been perfecting for 12,000+ years, avoiding Homo Sapiens. Man is the only animal Champtanystropheus has recently encountered, that is capable of, and surely has, killed it, in order to survive.

Imagine: as the climate warms, the ancestors of the Native Americans slowly filter into the Champlain Valley. When they get to what would become Lake Champlain, they already know what they will encounter, Champtany. You see, this is not the first time: as Homo Sapiens moved eastward from the Bearing Strait, they had been forced to learn how to rid the land they occupied, of these animals.

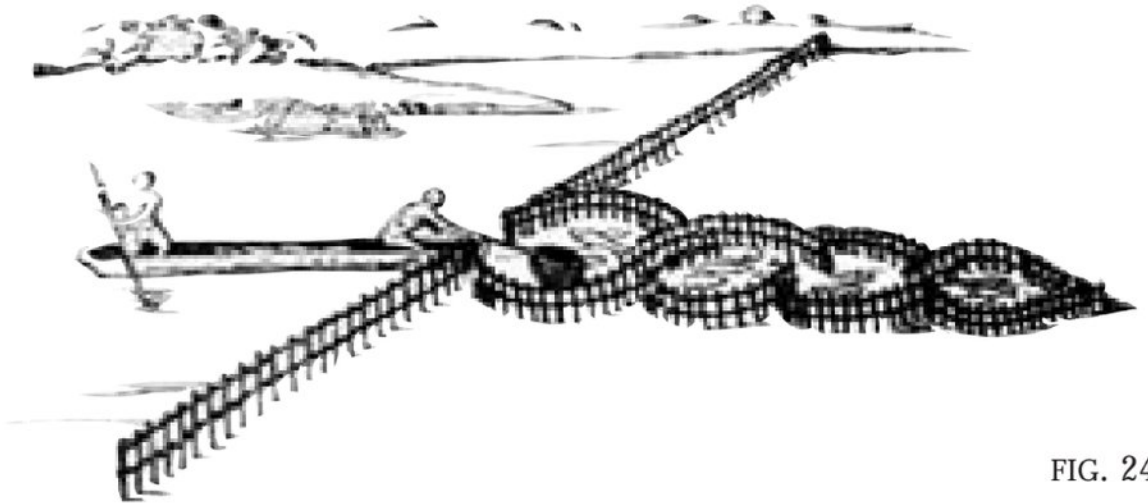


FIG. 24

Fishing weirs would have been a challenge. Or imagine Champtany and man together at the same falls trying to catch, or spear, a salmon as it made its way upstream to spawn. They competed for the same food source. Think they'd get along?

Over time man learned to kill these reptiles as need be. But a few remote families survived the onslaught of humans.

Scattered in lakes across the northern United States and Canada, are small, isolated populations of these animals.

These family groups are not to be considered SURVIVORS or LEFT-OVERS, for they have been here, by choice, since time immortal.

Lake Champlain was the last of the (great) lakes to be tamed by the native Americans. Four hundred years ago its waters were paddled over by the first (known) European; Samuel de Champlain. Recent published accounts falsely state that Champlain saw Champ. In his journals Champlain describes in length, the Gar Pike, but no mention of a monster.

FIG. 25



My search tip is this. If you are a threat or mean them harm, you will not see one while searching. This they can sense.

Otherwise..... Go to the same spot over and over. Become part of the scenery, from Champ's point of view. Throw rocks in the water if you like....talk....be normal. Have fun. And when you see one for the first, or for the twentieth time, remember, you are still going to freak and ask yourself.....OUT LOUD.....What!!! was that? Good Luck and check the web site for more tips.....

RECENT SIGHTINGS:

1997-1999

TO REPORT A SIGHTING
OR LEARN OF
THE MOST RECENT SIGHTING

GO TO
WWW.CHAMPQUEST.COM

DRAWINGS:

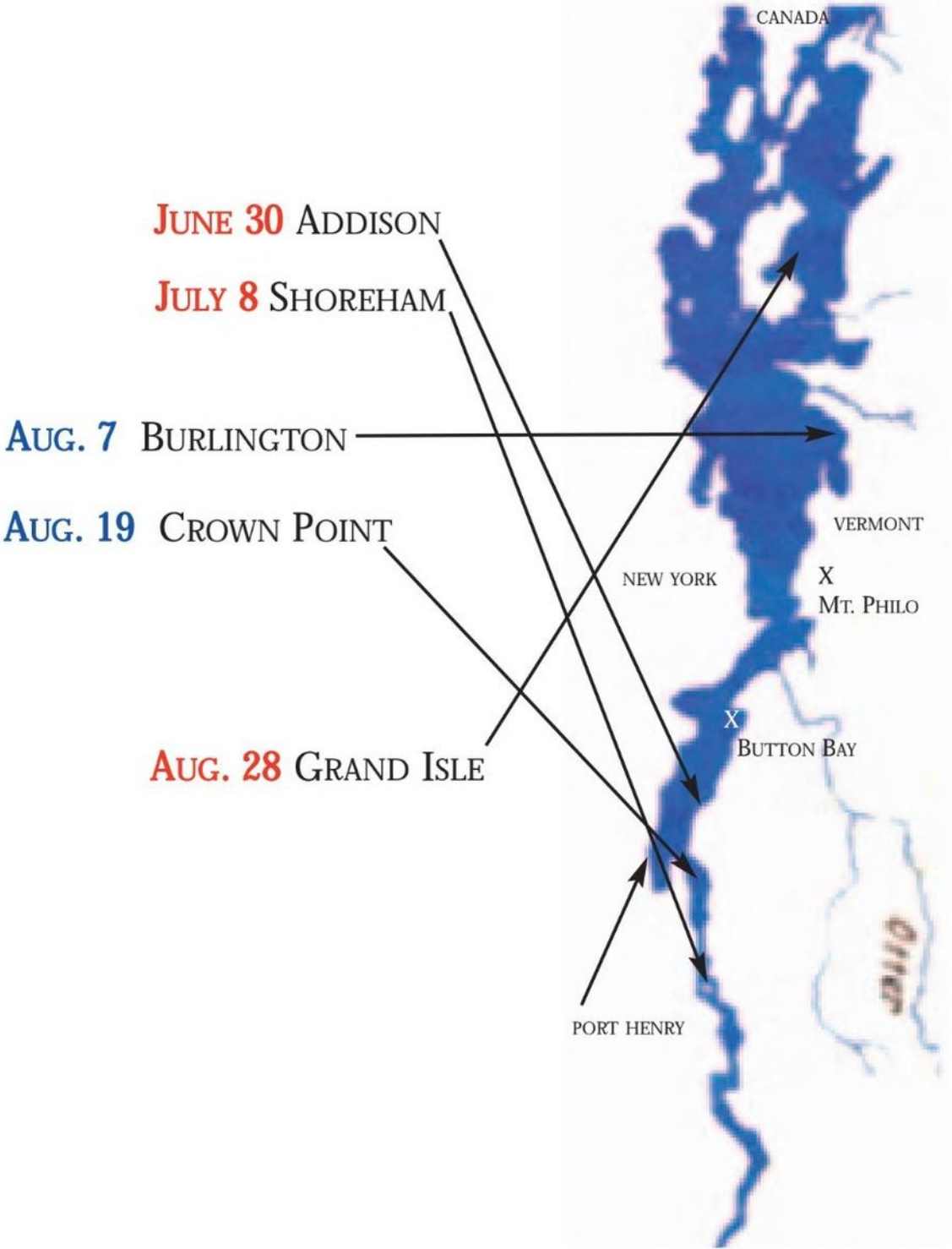


FIG. 26

In March of 1997 I first published a list of Best Search Dates I theorized would produce sightings.

The following reports have come to light since the Champ Quest web site went online in March of 1997.

JUNE 30, 1997 - ADDISON, VERMONT

It was the perfect evening to spend on a backyard deck overlooking Lake Champlain. That was just what three long-time Addison, Vt. residents were doing. Lake Champlain was calm, and there were no boats in sight. As they sat and admired the view, the head of an animal appeared from beneath the glass-like surface. They reported clearly seeing three humps, as the animal began to swim away.



"*Champ*," they said, had a companion. Slightly behind and to one side was a smaller version of the animal. All three adults reported that the second one appeared smaller with two, of what appeared to be humps, protruding out of the water. As far as the overall size of either creature, one observer who had remained on the deck and watched them for four to five minutes, said she wasn't sure of the length but believed the larger of the two Champs to be more than seventeen feet long.

This sighting was the first to fall on a Best Date.

JULY 8, 1997 - SHOREHAM, VERMONT



BEST
SEARCH
DATE

Lake street resident Michael Lawson, along with Meghan Mountford and Nicole Stockwell, who were guests of Henry and Virginia Lawton, saw Champ from the Shoreham Ferry.

They described the animal as approximately 15 feet long with humps. They also said that there were other similar animals swimming nearby. The Captain of the ferry also was a witness in this multiple sighting.

This was the second reported sighting in 1997. In both sightings more than one animal was seen.

Twenty years of searching for these animals and trying to understand their behavioral pattern is paying off. Both sightings occurred on dates I had theorized would produce sightings.

August 7, 1997 -Burlington, Vermont



BEST
SEARCH
DATE

Champ seen near Perkins Pier

Time: 5:40 a.m.

Weather conditions: Clear and calm. The sun was rising over the lake, giving the water a pink tint. There was very little wind so the surface of the water was very smooth.

Approx. how far away: Maybe 50 yards (I am a terrible judge of distance). Direction it was moving: South.

What I saw: What first caught my eye was what looked like a log sticking out of the water, but it seemed strange because it appeared to be moving. I thought it kind of looked like a large otter might if it was swimming. I figured it was just some sort of weird illusion - that it was really only a stationary log. But I couldn't keep my eyes off of it because I didn't really believe that. As I got closer, it began to look more like some type of alligator swimming around in the lake.

It moved very gracefully, barely disturbing the water. When I tried to tell my mind again that it was only a log, it suddenly (smoothly though, not jerky) dove down under the water. What I saw then was its back. It had those lumps/spines (I don't know what you call them) like on the back of a triceratops. There were several (lumps) and they were not real large. The creature in general did not seem real large to me - maybe 10 feet long, based on the size of its other parts. The color was dark - probably something close to black. I don't know if what I saw was actually "Champ", but it was certainly unusual and seem to fit some of the descriptions that I have heard of Champ.

EYEWITNESS ACCOUNT BURLINGTON, VERMONT

AUGUST 19, 1997 - CROWN POINT, NEW YORK

Three campers spotted Champ Tuesday evening just south of the Champlain Bridge. Here is what I know.

Norm Dirkman and his wife and son were looking out at the lake when Mrs. Dirkman saw an object moving from the north towards the south. She brought it to the attention of her husband who then left to get a camera. While he was gone, Mrs. Dirkman said that the animal broke the surface and that she saw a neck and head lift out of the water. The animal twisted its head around and dove back under. Upon arriving back at the scene, Mr. Dirkman took several pictures of the dark shape of the animal as it swam away. The animal was about 300 yards away when he took the photos. All three agreed that the object was between 15 - 20 feet long.

AUGUST 28, 1997 - GRAND ISLE, VERMONT

Grand Isle State Park, Vermont

I believe I was lucky enough to have encountered Champ this past

 Thursday August 28, while camping at Grand Isle State Park in Grand Isle, Vermont with my girlfriend. Although neither of us had a watch on, I'm guessing it was between 7- 7:30 p.m. (dusk).

We had a campsite overlooking the lake.

What alerted us was the change in waves against the shore - up until then they were very calm and quiet. All of a sudden, the waves were considerably louder. Both of us jumped up hoping to see what was causing the noise. Although nothing was breaking the surface of the water, there was definitely something rather large (10-15 feet??) and dark barely cresting the surface I'm guessing around 20-25 feet out. It was moving very fast.

We snapped a couple of pictures, but it was a borrowed camera, and we were unfamiliar with it. Hoping to get a better picture, I got down the cliff to a nearby dock, but unfortunately whatever was there had disappeared under the water. Hopefully this will help you in the search. If you think it might be useful then by all means please use the story. Just out of curiosity - does what I saw fit the bill of a Champ sighting. Also, have there been any documented cases of the creature making any sort of noise?

Update: Fri, 5 Sep 1997

As for the sound, I hadn't heard anything but my girlfriend had. I was off fishing a bit before the sighting. When I returned, she commented on a loud whistling type of sound that went on for a few minutes. She later said it was not that of a cricket or bird, so.....?

MAY 8 RED ROCKS BURLINGTON

MAY 15 SHORE ACRES NORTH HERO

JULY 21 ST. ALBANS BAY

IF ANYONE HAD A SIGHTING DURING 1998,
PLEASE REPORT IT.

THE WATER WAS VERY HIGH DURING THE PEAK
OF THE SUMMER. FRESHETS, IN THE MOUN-
TAINS TO THE EAST, FLOODED LAKE
CHAMPLAIN. IT WAS A DANGEROUS PLACE TO
NAVIGATE A BOAT BECAUSE OF THE MANY TREES
& OTHER DEBRIS WASHED INTO THE LAKE.

I HAD NEVER SEEN THE LIKES OF IT. YET,
THERE WERE VERY FEW SIGHTINGS. THIS
SHOULD PUT TO REST THE BELIEFS OF ONE
FACTION OF SKEPTICS...

THAT CHAMP IS A LOG.

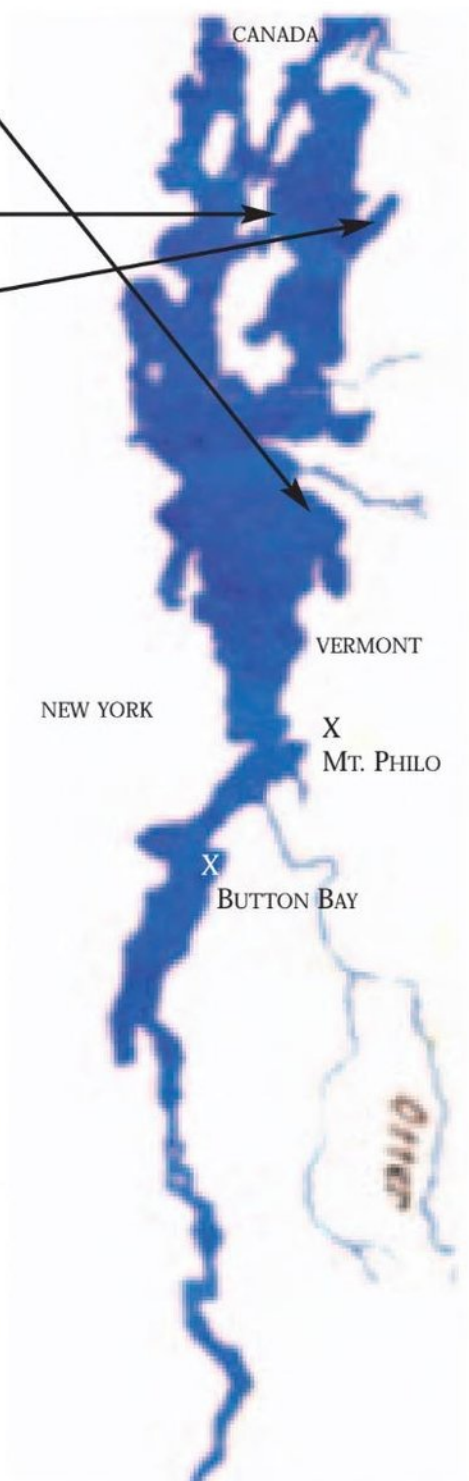


FIG.27

MAY 8, 1998 - BURLINGTON, VERMONT

Subject: Sighting May 8

Date: Sun, 31 May 1998 11:28:37 -0400

To: Dennis Jay Hall <ultisrch@together.net>

Mr. Smith wrote:

Yesterday afternoon, 5/8/98, I observed what looked like the wake of a small boat near my moored boat. I looked closer to see what had caused the wake and there were no boats moving in the area. The water continued to be disturbed by something close under the surface moving at about 3 mph northwards towards the Red Rocks Park area at the north end of Shelburne Bay. Soon after I saw another wake/disturbance coming from the south moving in the same direction. With a telescope I could see a number of points breaking the water - reminiscent of the protrusions on the back of an alligator.

Mr Hall:

Since sending this message to you, a discussion with another individual convinced me that this phenomenon that we observed was, in fact, a gathering of sturgeon. Apparently this activity at the surface is not unheard of at this time of year. Further, the character of the back of the one individual that broke the surface of the water is consistent with a sturgeon and not consistent with what I believe to be the physiology of "Champ". This conclusion does nothing to undermine my personal belief in the existence of Champ critters in Lake Champlain and I hope that he/she will reveal him/herself to me more clearly in due time. On with the quest!

Peace

Mr. Smith

MAY 15, 1998 - NORTH HERO, VERMONT

Shore Acres, North Hero, Vermont.

A man from Boston captured an animal on video. He was at Shore Acres in North Hero when the sighting occurred.

The video is six minutes long and shows a large animal moving through the water.

I contacted the owners of Shore Acres by e-mail and one of the owners said she had heard talk of a Champ sighting that weekend. She also stated that Champ is seen frequently during the summer!

JULY 21, 1998 - ST. ALBANS BAY, VERMONT

While being interviewed by the BBC for a Discovery Channel special on Lake Monsters, a little girl overheard our conversation and shyly walked up to me and said "Have you ever seen Champ?" "I have."

BEST
SEARCH
DATE



An eight year old girl from Norfolk, Virginia, while on vacation in Vermont, was looking for Champ when she had the good fortune of seeing one as it fed in St. Albans Bay.

While sitting on the end of a wooden dock, she saw the animal as it stuck its neck out of the water.

When asked what she saw, she said, "A neck sticking out of the water at an angle." I asked, how far out of the water? She pointed to the 7 foot roof of the Burlington to Port Kent Ferry we were riding on. I asked, how big around was the neck? She said "about six inches," while holding her hands in a circle. She then said "Oh! And it had a fish in its mouth!"

I then asked, how big was the fish? She said she couldn't really tell. I asked, could you see the animals eyes? She thought for a second, then shook her head no. I then asked her, did you see the head very well? A smile of wonder appeared on her face as her mind relived the experience. She suddenly blurted out

"Yes, there were two bumps on its head, and it didn't, you know, (twirling her hand in a circle one finger pointed down) mess up the water when it went under."

My last question before the ferry landed was, what time was it when you saw Champ?

She replied, "In the afternoon, late, just around supper time."

DRAWINGS:

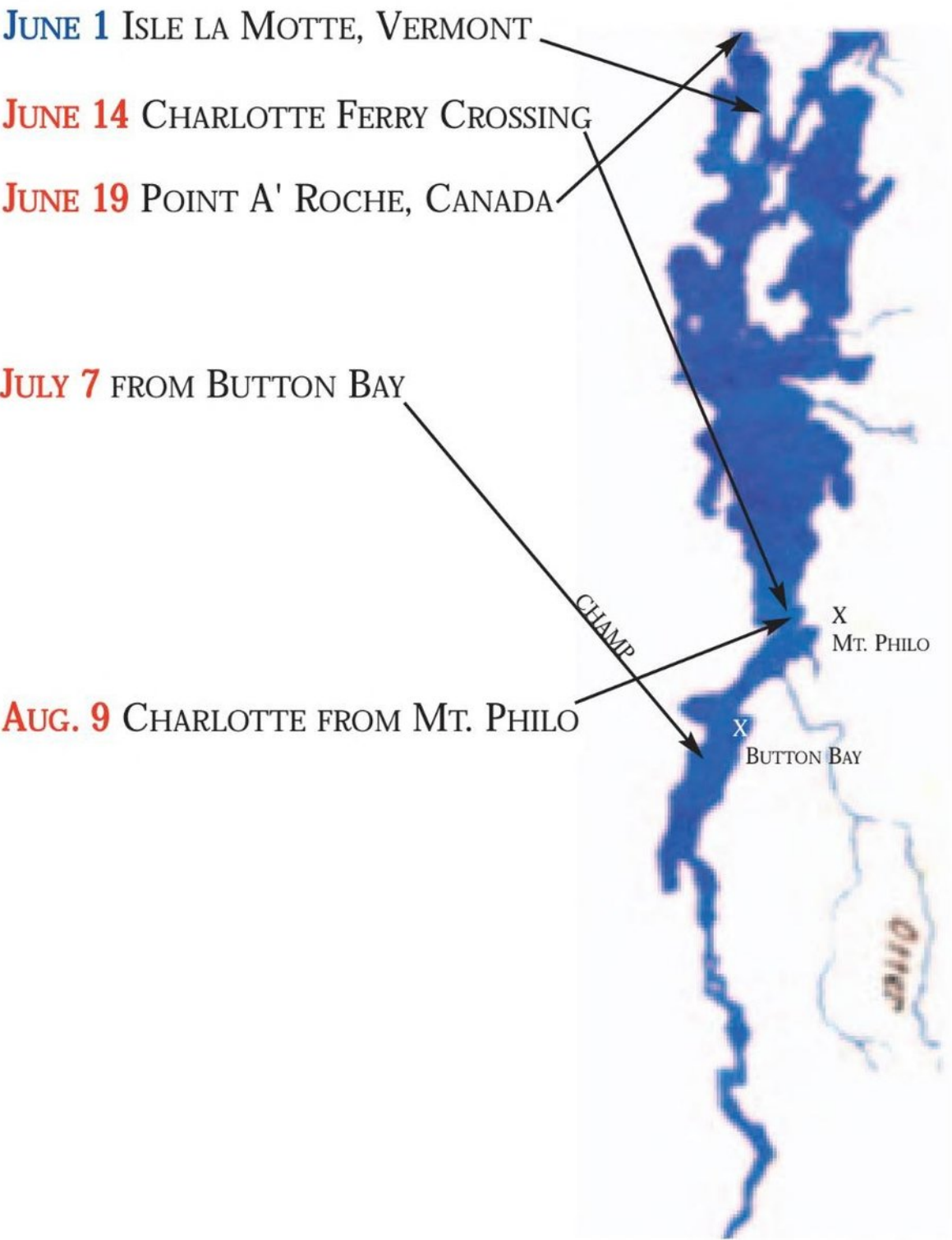


FIG. 28

June 1, 1999 sighting:
(+44.908108,-073.336249)

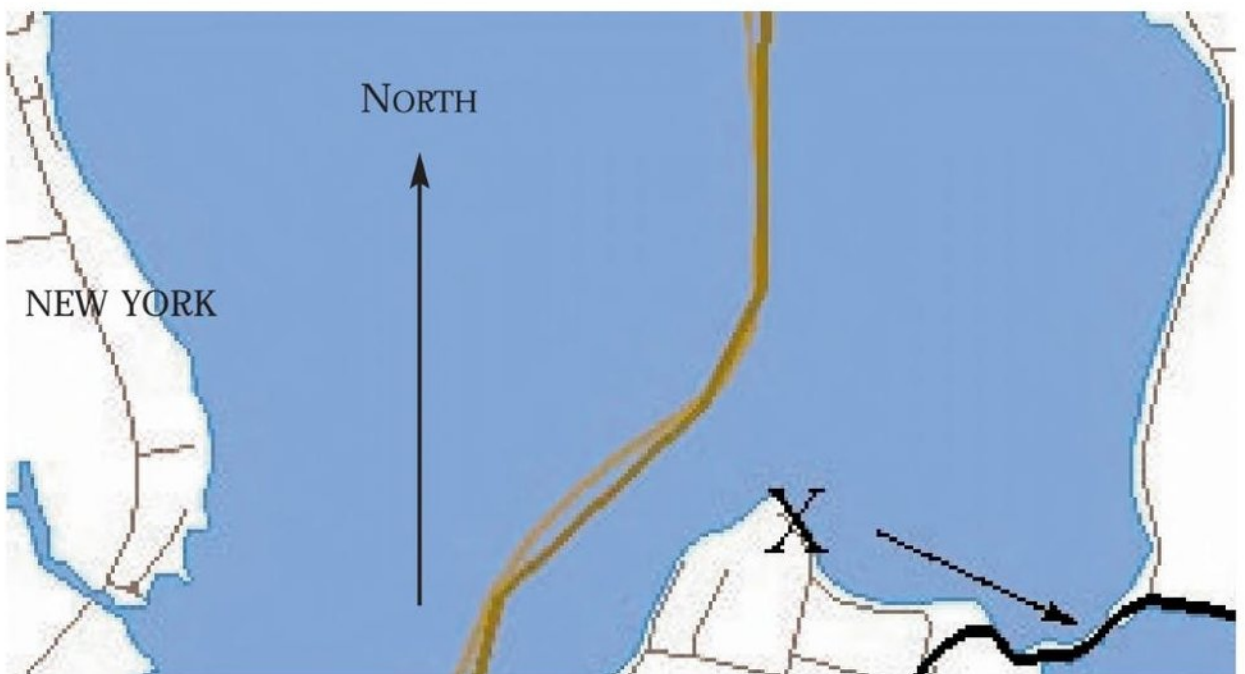
I received an email from the young man who saw Champ. Here is his story----

If you could send me a map that would be good or I can just tell you that I was on Isle La Motte facing New York. The bridge was to my right.

When you get onto Isle La Motte there is a gravel road to the right about 200 feet down. My uncle owns a cottage up near the end of that road and he invites us up usually twice a year. 2 other people saw the thing other than me. My older 16 year old brother (He saw it about a second before me) and my 12 year old cousin.

Here is a map of the area. X marks the approx. location of Jacob, his brother and his cousin.

FIG. 29



CHARLOTTE, VERMONT FERRY CROSSING JUNE 14



BEST Champ was seen in the middle of June from the
SEARCH Charlotte, Vermont to Essex, New York Ferry.

DATE

Jim Pittman of Sudbury, Vermont, saw a very large animal

"with the shape of an earthworm"

rising about three feet from the surface of Lake Champlain.

Mr. Pittman was very definite about what he saw. He has spent much of his life on the ocean and is used to seeing large aquatic animals. This animal was unlike any he had seen in the past.

SUBJECT: CHAMP SIGHTING JUNE 19, 1999

Date: Mon, 19 Jul 1999 14:30:06 EDT

From: @aol.com

To: ultisrch@together.net

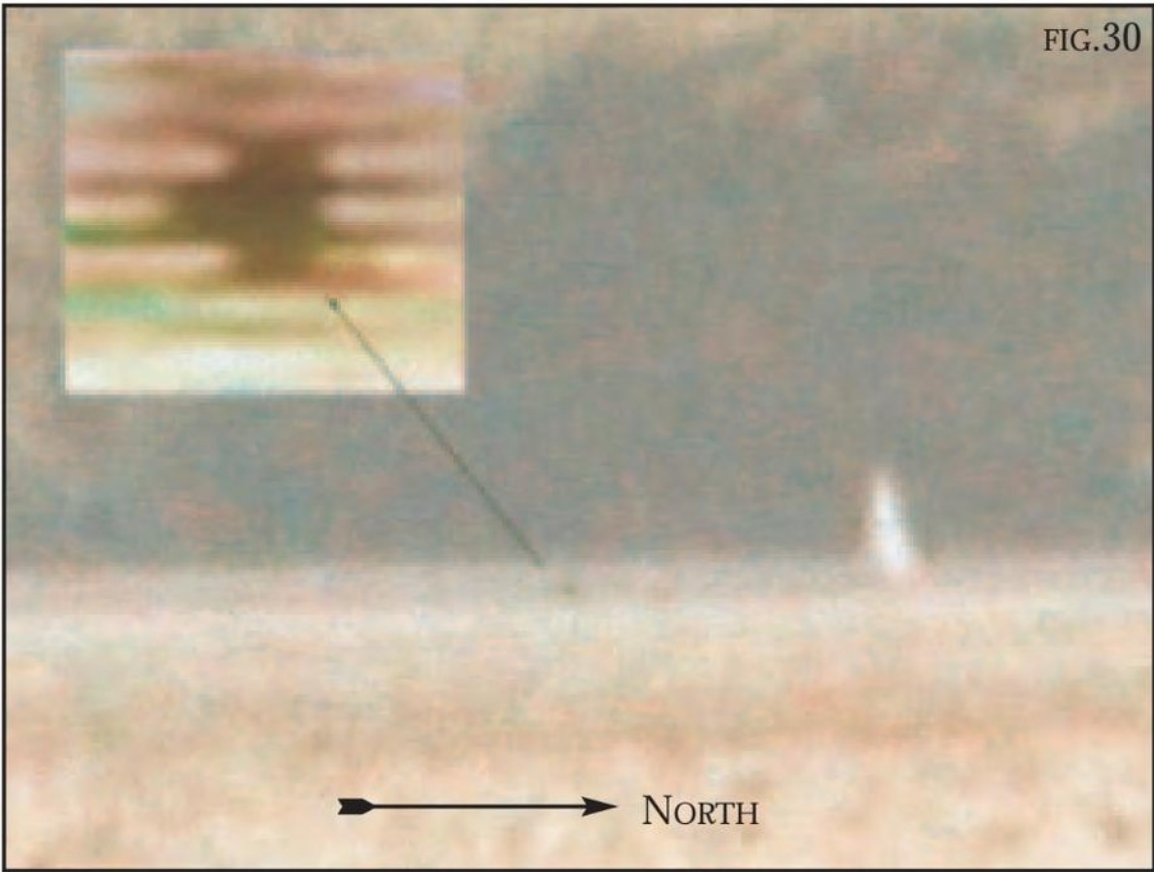
On June 19, between 7:30 pm and 8:00 pm Champ was sighted around the upper corner of the Point A' Roche boat dock. We were returning from dinner in Champlain and I was watching the water on the side of the boat because there were an enormous amount of fish at the surface. My finance asked me what was in front of us. I looked and whatever it was, was making its own wave. He slowed the boat because we weren't sure if there was a log there that we didn't know about or some rocks. Then two humps came out of the water. The part we saw was approximately six to ten feet long. The humps continued to move along and we just watched until they went back under the water and disappeared. I was going to call the Chamber of Commerce and report the sighting, but my fiance is afraid people will think we are nuts. Maybe this information will be useful to you since you keep track of sightings. I will keep watching, and from now on I will bring my camera!!!

BEST
SEARCH
DATE

JULY 7, 1999- BUTTON BAY

BEST While on watch at Button Bay, Ferrisburgh, Vermont, I
SEARCH watched and video taped an animal as it swam back and
DATE forth on the New York side of Lake Champlain.

The distance was extreme; approximately 2 miles to my south west. Heat distortion is evident in the photograph, as is the animal, and a sailboat approaching it from the north. The sighting lasted 45 minutes, during which time the animal submerged and resurfaced repeatedly.



This was my 20th sighting of these animals. The excitement of seeing one of these reptiles, for the first time or the twentieth, does not diminish.

AUGUST 9, 1999 -THE SUMMIT OF MT. PHILO.

August 9, 1999 8:00 p.m.

Charlotte, Vermont

"I may have become a believer."

On August 9, my companion and I stood on the Mt. Philo overlook to view the sunset. I was looking west across Lake Champlain to the Adirondack Mountains of New York.



About a half hour before sunset at 8 pm I noticed a tall, slender solid dark object that I thought must be a ship's mast. But there was no ship attached to it.

It was some distance from the shoreline and from the comparison extremely tall. It had a swaying movement and my mind superimposed the idea "buoy" upon it.

I turned to talk with my companion for a moment, having "dismissed" the object. I turned back and noticed the "object" was gone.

I quickly scanned the lake for boats but found nothing. I recalled that I was "drawn" to the "object" as I am frequently drawn to wildlife before I actually see them. I have quick eyes and have been the first to sight a distant pilot whale on a whale watch tour. Also, I was considering making a joke about Champ to a couple who were scanning the landscape with binoculars.

If only I had borrowed those binoculars!

B.R.

Burlington, VT

NOTES:

BEST SEARCH DATES

APRIL-NOVEMBER 2000



THE BEST SEARCH DATES
ARE REPRESENTED BY THE
CHAMPTANYSTROPHEUS
ICON



CHAMP QUEST 2000 FIELD GUIDE

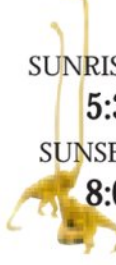
AND ALMANAC OF BEST SEARCH DATES

APRIL

SUNDAY	MONDAY	TUESDAY	WED	THURS	FRIDAY	SATURDAY
DAYLIGHT SAVINGS TIME BEGINS ↓				29 SUNRISE: 5:40 SUNSET: 6:16 	30 	1 
2 	3 	4 NEW MOON ↑	5 	6 	7 	8 
9 SUNRISE: 6:20 SUNSET: 7:29 	10	11 AVERAGE AIR TEMP. HI/LOW FOR DATE 52F/33F	12	13	14	15 TROUT SEASON BEGINS VT ↑
16	17	18  FULL MOON	19	20	21	22 EARTH DAY
23 EASTER AVERAGE MONTHLY WATER TEMP. 39F	24	25	26	27	28	29 SUNRISE: 5:48 SUNSET: 7:53 
30 						
REPORT ALL SIGHTINGS TO DHALL@ESSENCEOFVERMONT.COM						
THE ULTIMATE SEARCH						

ONLY YOU CAN PREVENT THE SPREAD OF ZEBRA MUSSELS ←

DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____

CHAMP QUEST 2000 FIELD GUIDE AND ALMANAC OF BEST SEARCH DATES						MAY
SUNDAY	MONDAY	TUESDAY	WED	THURS	FRIDAY	SATURDAY
	1 	2 	3 	4 NEW MOON 	5 	6 
7 	8 	9 SUNRISE: 5:34 SUNSET: 8:05 	10	11 AVERAGE AIR TEMP. HI/LOW 62F/39F	12	13
14 MOTHERS DAY	15 1999 SEARCH BEGAN 	16 AVERAGE MONTH- LY WATER TEMP. 48F	17	18  FULL MOON	19	20
21 LAKE CHAMPLAIN WATER TEMP. REACHED 50F IN 1999	22	23 MEMORIAL DAY 	24	25	26	27
28 SUNRISE: 5:14 SUNSET: 8:25 	29 	30 	31 	THE ULTIMATE SEARCH		

ONLY YOU CAN PREVENT THE SPREAD OF ZEBRA MUSSELS 

DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____

CHAMP QUEST 2000 FIELD GUIDE

AND ALMANAC OF BEST SEARCH DATES

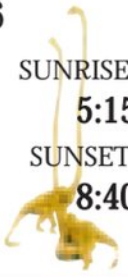
JUNE

SUNDAY	MONDAY	TUESDAY	WED	THURS	FRIDAY	SATURDAY
				1 	2 NEW MOON 	3 
4 	5 	6 	7  SUNRISE: 5:09 SUNSET: 8:34 1997 Search Began Lake reached 50F.	8	9 AVERAGE AIR TEMP. HI/LOW 76F/50F	10
11 AVERAGE MONTHLY WATER TEMP. 60F	12	13	14	15	16  FULL MOON	17
18 MAINLY A NOCTURNAL FEEDER, CHAMPATANY FINDS IT DIFFICULT TO WAIT TILL DARK TO EAT DURING THE LONGEST DAYS OF THE YEAR.	19	20	21 FIRST DAY OF SUMMER	22 LONGEST DAYS OF THE YEAR	23	24
25 FATHERS DAY	26 SUNRISE: 5:09 SUNSET: 8:41 	27 	28 	29 	30 	
THE ULTIMATE SEARCH						

ONLY YOU CAN PREVENT THE SPREAD OF ZEBRA MUSSELS



DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____

CHAMP QUEST 2000 FIELD GUIDE AND ALMANAC OF BEST SEARCH DATES						JULY
SUNDAY	MONDAY	TUESDAY	WED	THURS	FRIDAY	SATURDAY
						1 NEW MOON 
2 	3 	4 INDEPENDENCE DAY 	5 	6 SUNRISE: 5:15 SUNSET: 8:40 	7	8 AVERAGE AIR TEMP. HI/LOW 81F/56F
9	10	11	12	13	14	15
AVERAGE MONTHLY WATER TEMP. 69F						
16  FULL MOON	17	18	19	20	21	22
23	24 AVERAGE AIR TEMP. HI/LOW 81F/58F 	25	26 SUNRISE: 5:32 SUNSET: 8:26 	27 	28 	29 
30 	31 NEW MOON			THE ULTIMATE SEARCH		

ONLY YOU CAN PREVENT THE SPREAD OF ZEBRA MUSSELS 

DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____

CHAMP QUEST 2000 FIELD GUIDE

AND ALMANAC OF BEST SEARCH DATES

AUGUST

SUNDAY	MONDAY	TUESDAY	WED	THURS	FRIDAY	SATURDAY
	31 NEW MOON	1 	2 	3 	4 	5 SUNRISE: 5:43 SUNSET: 8:15 
6	7 AVERAGE AIR TEMP. HI/LOW FOR DATE 80F/58F	8	9	10	11	12
BOATERS BEWARE!!! DURING THE HOTTEST PART OF THE SUMMER CHAMPTANYSTROPHEUS PREFERS THE MIDDLE OF THE LAKE, JUST UNDER THE SURFACE. THEY BECOME VULNERABLE WHEN THE WATER REACHES 68+ DEGREES F.						
13	14 AVERAGE MONTHLY WATER TEMP. 72F	15  FULL MOON	16	17	18	19
				CHAMP DAY PORT HENRY, NEW YORK ↑ BENNINGTON BATTLE DAY		
20	21	22 AVERAGE AIR TEMP. HI/LOW FOR DATE 77F/57F	23	24 SUNRISE: 6:06 SUNSET: 7:44 	25 	26 
27 	28 	29 NEW MOON	30 	31 	THE ULTIMATE SEARCH	

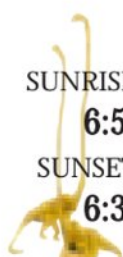
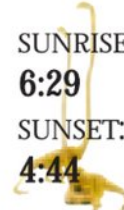
ONLY YOU CAN PREVENT THE SPREAD OF ZEBRA MUSSELS

DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____

CHAMP QUEST 2000 FIELD GUIDE AND ALMANAC OF BEST SEARCH DATES						SEPTEMBER
SUNDAY	MONDAY	TUESDAY	WED	THURS	FRIDAY	SATURDAY
					1 	2 
3 SUNRISE: 6:17 SUNSET: 7:26 	4 LABOR DAY	5	6	7	8	9
10	11	12	13  FULL MOON	14	15	16
17	18	19	20	21 FIRST DAY OF FALL	22 SUNRISE: 6:39 SUNSET: 6:51 	23 
24 	25 	26 	27 NEW MOON	28 	29 	30 
				THE ULTIMATE SEARCH		

ONLY YOU CAN PREVENT THE SPREAD OF ZEBRA MUSSELS ←→

DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____

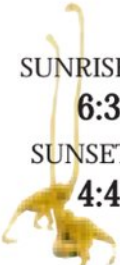
CHAMP QUEST 2000 FIELD GUIDE AND ALMANAC OF BEST SEARCH DATES						OCTOBER
SUNDAY	MONDAY	TUESDAY	WED	THURS	FRIDAY	SATURDAY
1 	2 SUNRISE: 6:52 SUNSET: 6:32 	DUCK HUNTERS - IT IS IN YOUR BEST INTEREST TO WASH YOUR BOAT, WADERS AND DOG AFTER HUNTING IN LAKE CHAMPLAIN OR ITS TRIBUTARIES. Do Not Enter ANY OTHER BODY OF WATER Without Washing!!! IT WILL BECOME INFESTED.				
8	9 COLUM-BUS DAY	10	11 BATTLE OF VALCOUR LAKE CHAMPLAIN 1776	12	13 	14
15	16	17	18	19	20 AVERAGE AIR TEMP. HI/LOW 56F/36F	21
22 SUNRISE: 7:17 SUNSET: 5:57 	23 	24 	25 	26 	27 ↓ NEW MOON	28 
29 DAYLIGHT SAVINGS ENDS 	30 	31 	SUNRISE: 6:29 SUNSET: 4:44 	THE ULTIMATE SEARCH		

DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____ TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____

CHAMP QUEST 2000 FIELD GUIDE

AND ALMANAC OF BEST SEARCH DATES

NOVEMBER

SUNDAY	MONDAY	TUESDAY	WED	THURS	FRIDAY	SATURDAY
			1  SUNRISE: 6:30 SUNSET: 4:42	2	3	4 VETERANS DAY ↓
5 AVERAGE LAKE TEMP & WATER LEVEL FOR DATE 50 F 95.50 FT	6	7	8	9	10 VT DEER SEASON BEGINS	11 ↓  FULL MOON
12	13	14	15	16 AVERAGE AIR TEMP. HI/LOW 42F/24F ↓	17	18
19	20 SUNRISE: 6:53 SUNSET: 4:23 	21 	22 	23 ↓ THANKS- GIVING 	24 	25 NEW MOON
26 	27 	28 	29 SUNRISE: 7:05 SUNSET: 4:16 	30  CHAMP QUEST 2001 THE ULTIMATE SEARCH		

ONLY YOU CAN PREVENT THE SPREAD OF ZEBRA MUSSELS ←→

DATE: _____TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____
DATE: _____TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____	DATE: _____TIME: _____ LOCATION: _____ REMARKABLE OBSERVATIONS: _____ _____ _____ _____

PHOTOGRAPHIC & SONAR EVIDENCE

MANSI PHOTOGRAPH

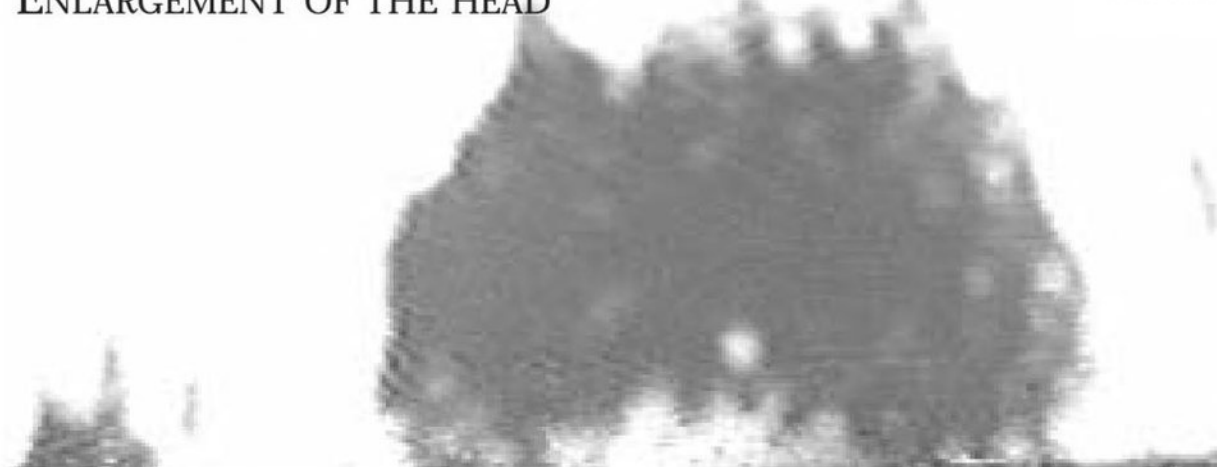
FIG. 31



THE BEST SINGLE PIECE OF EVIDENCE IS THE MANSI PHOTOGRAPH. THE HISTORY OF THIS PHOTO IS WELL KNOWN AND WILL NOT BE REPEATED HERE.

ENLARGEMENT OF THE HEAD

FIG. 32



ENLARGEMENT OF THE BACK AREA SHOWING THE HUMP.

FIG. 33



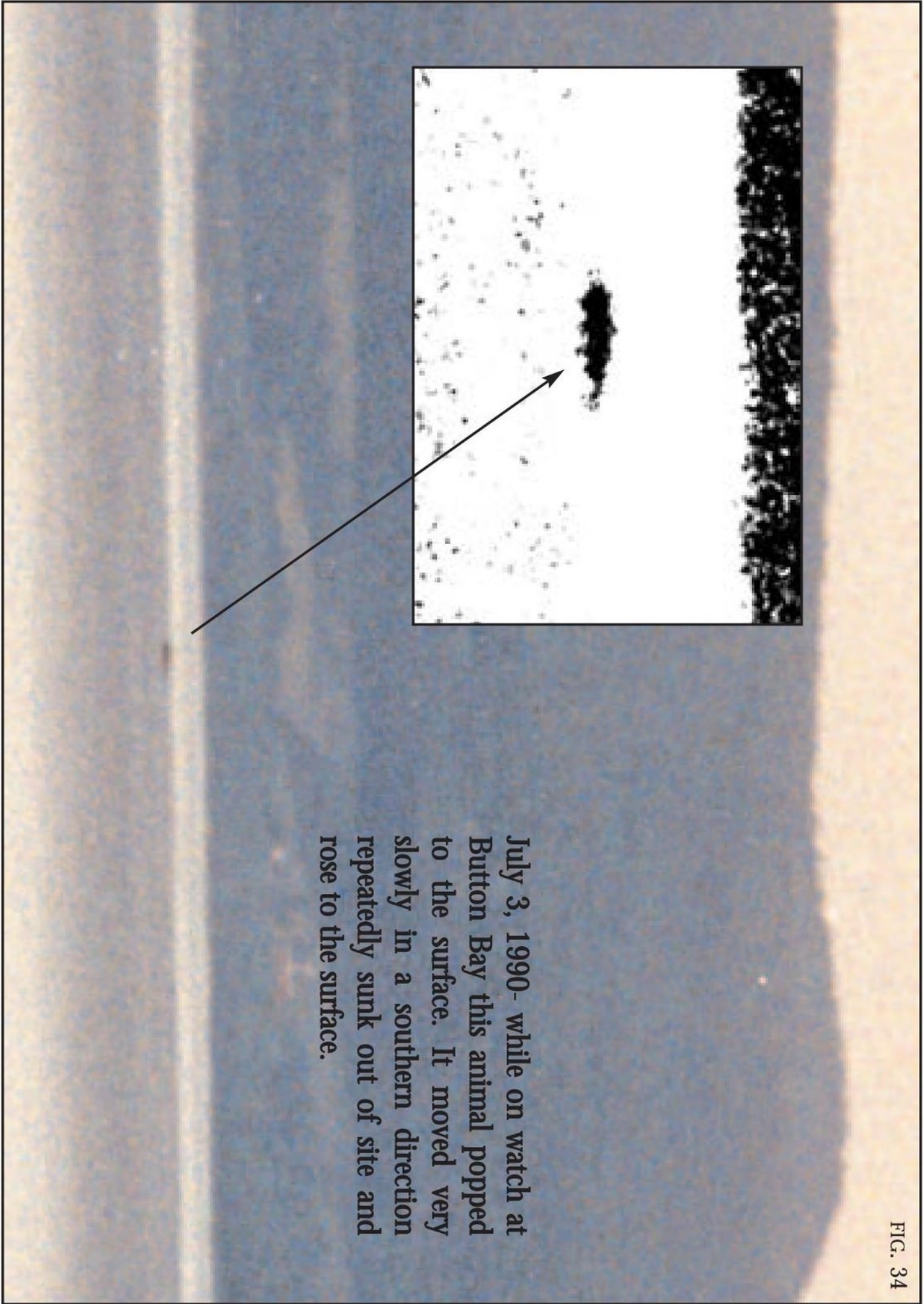
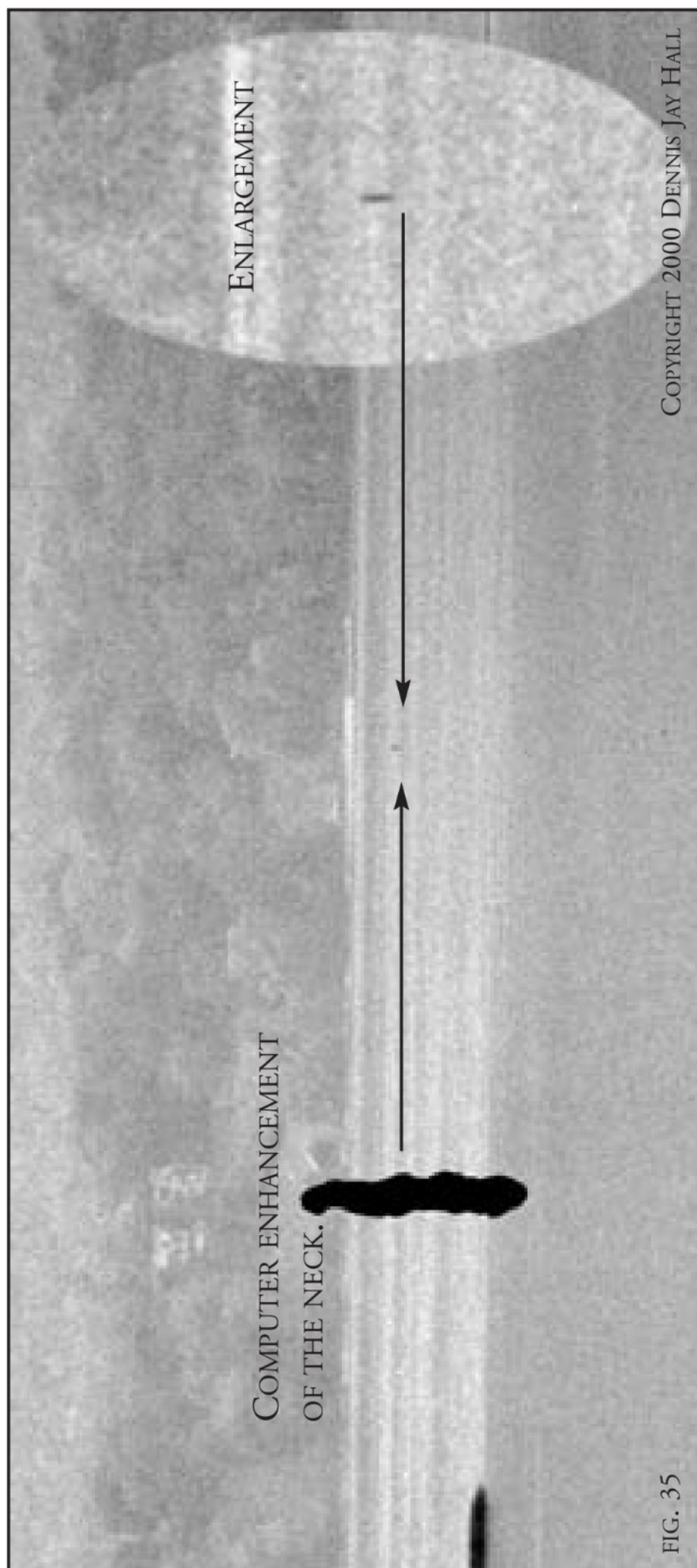


FIG. 34

July 3, 1990- while on watch at Button Bay this animal popped to the surface. It moved very slowly in a southern direction repeatedly sunk out of site and rose to the surface.



November 8, 1992; 4:30 p.m.; near Rock Island, Panton, Vermont while conducting surveillance from Button Bay boat access, observed three objects for 12-15 minutes to the south and just west of Rock Island. Description: Three objects, like necks, sticking 8 feet out of the water and moving south. While watching through 10 x 50 binoculars, a fourth neck suddenly stuck straight up out of the water to the left, but along side the others. Same size in appearance. I then drove two miles south to Kent's Bay in order to get a closer look. While there, one animal popped up just long enough to take the above photograph.

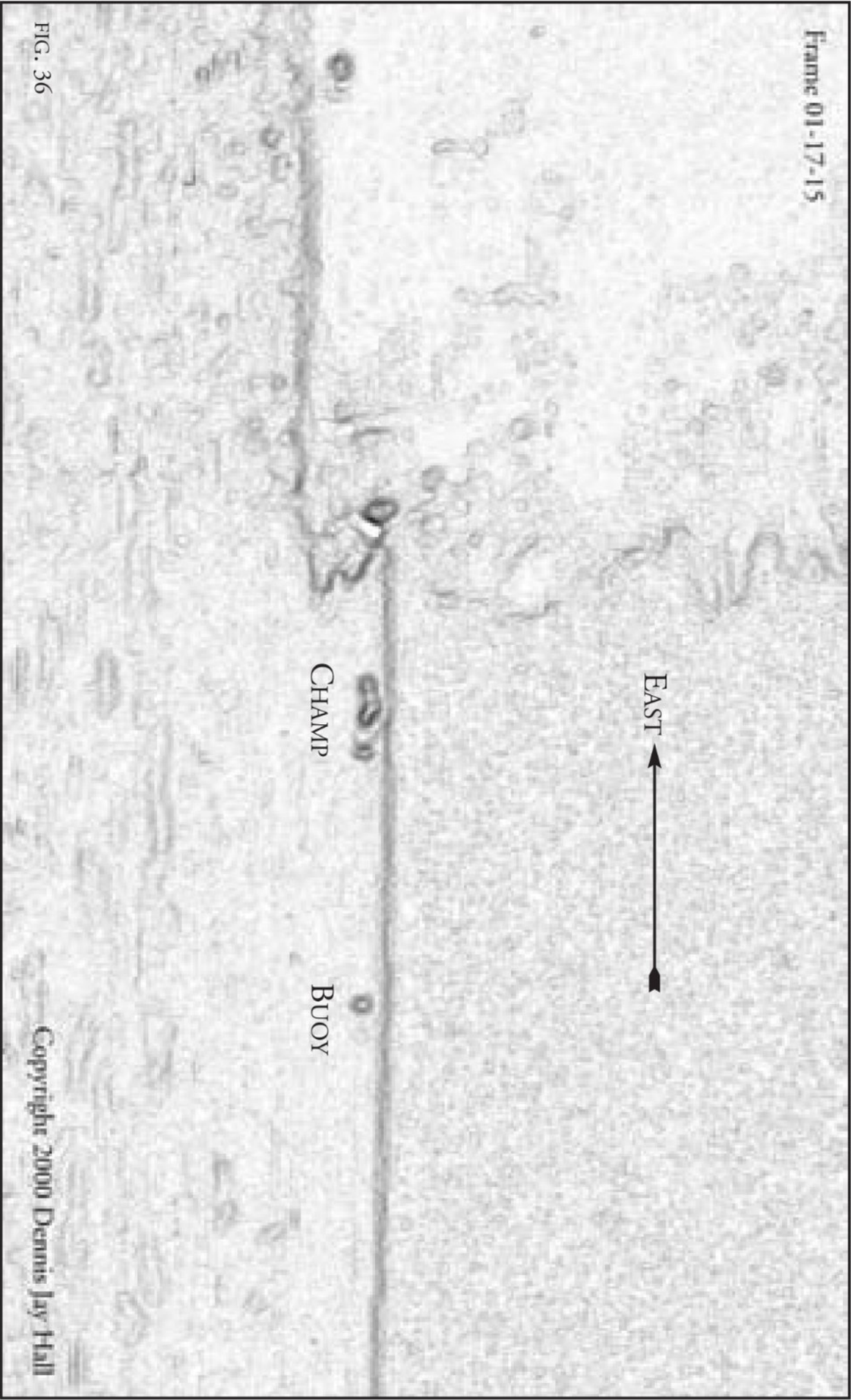


FIG. 36

ENHANCED STILL SHOT FROM THE 1985 HALL VIDEO.

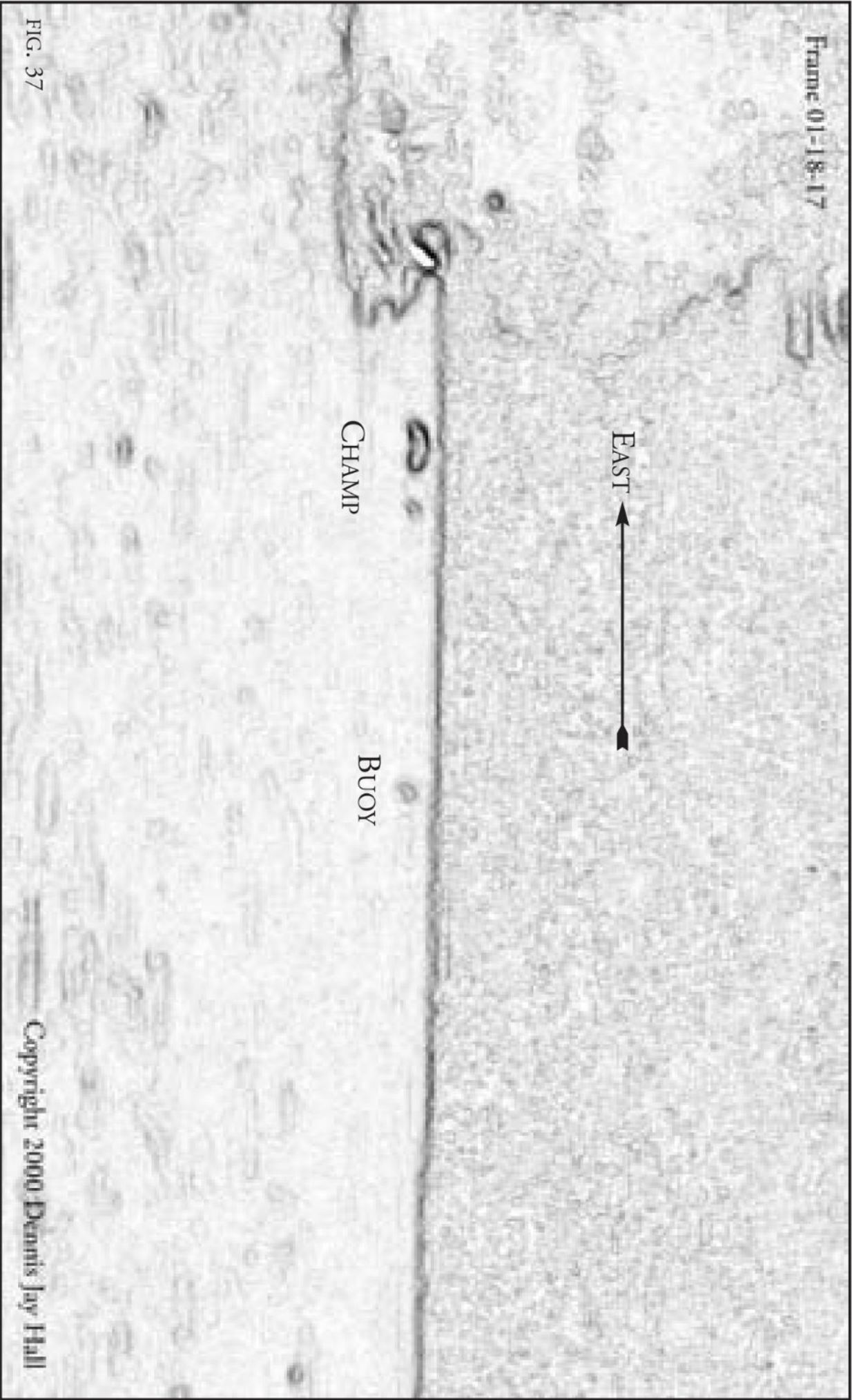


FIG. 37

ENHANCED STILL SHOT FROM THE 1985 HALL VIDEO.

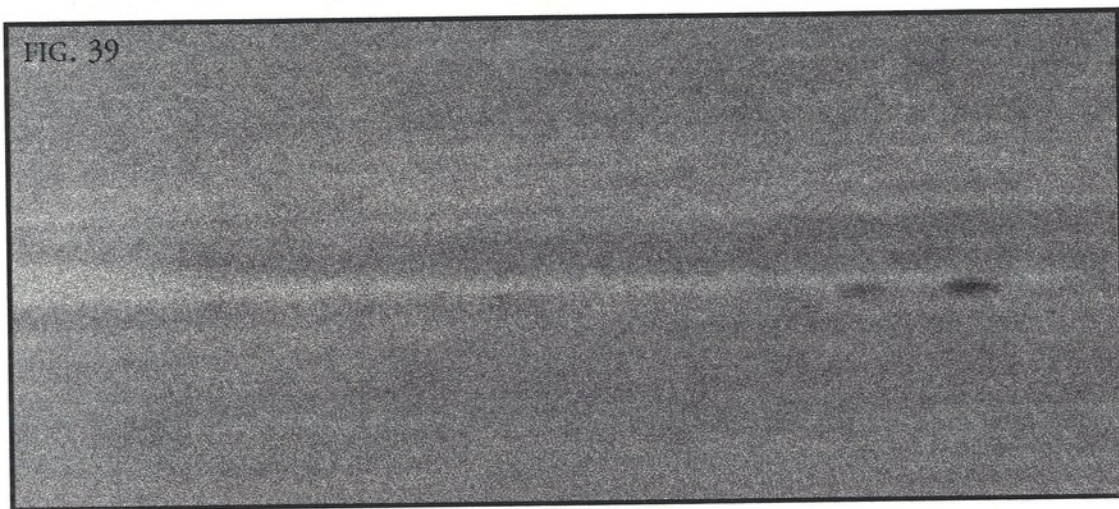
Copyright 2000 Dennis Jay Hall

FIG. 38



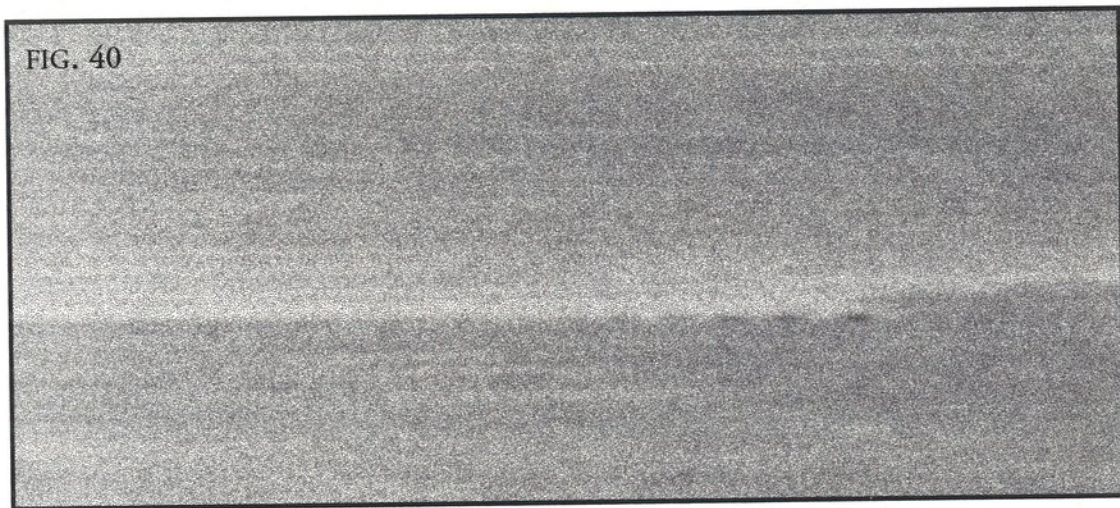
JULY 3, 1999 -THE WAKE IS WHAT FIRST CAUGHT MY ATTENTION.

FIG. 39



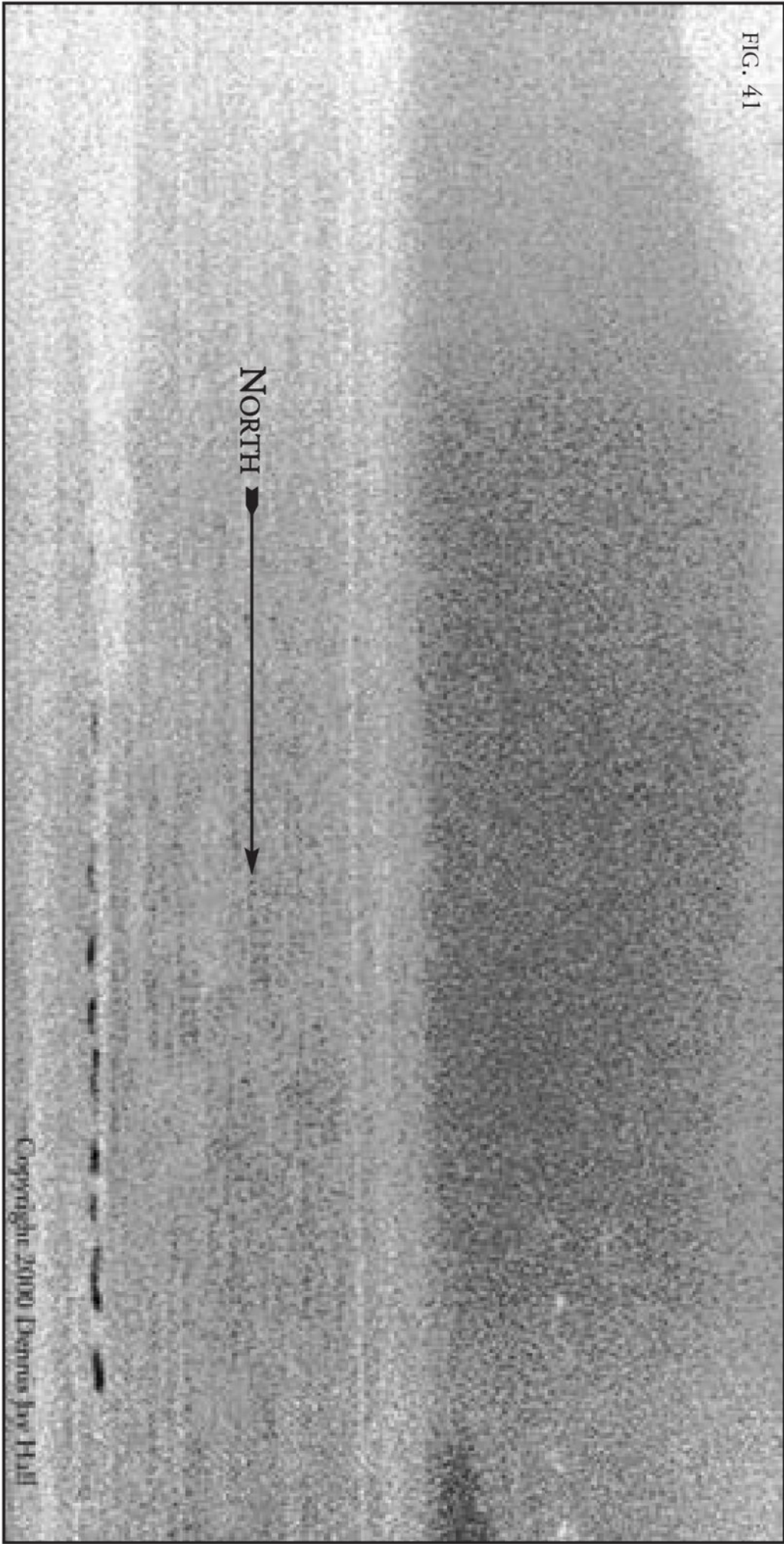
THE ANIMAL THEN ROSE TO THE SURFACE REVEALING TWO SEGMENTS OF ITS BODY.

FIG. 40

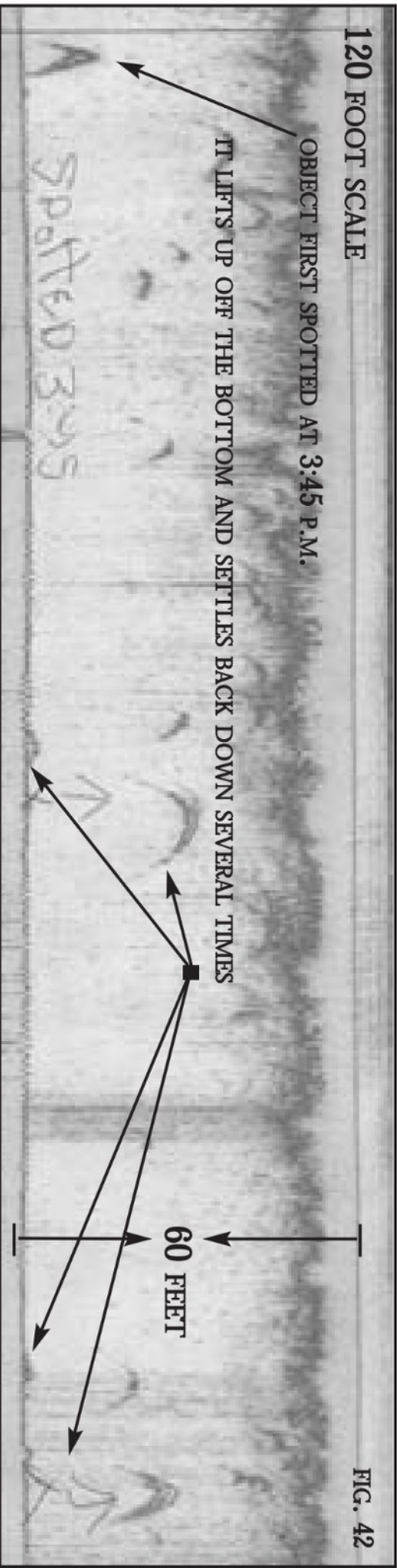


IT CONTINUED TO SLOWLY RISE TO THE SURFACE FINALLY REVEALING ITS HEAD AND MOST OF THE BODY (FIG. 41)

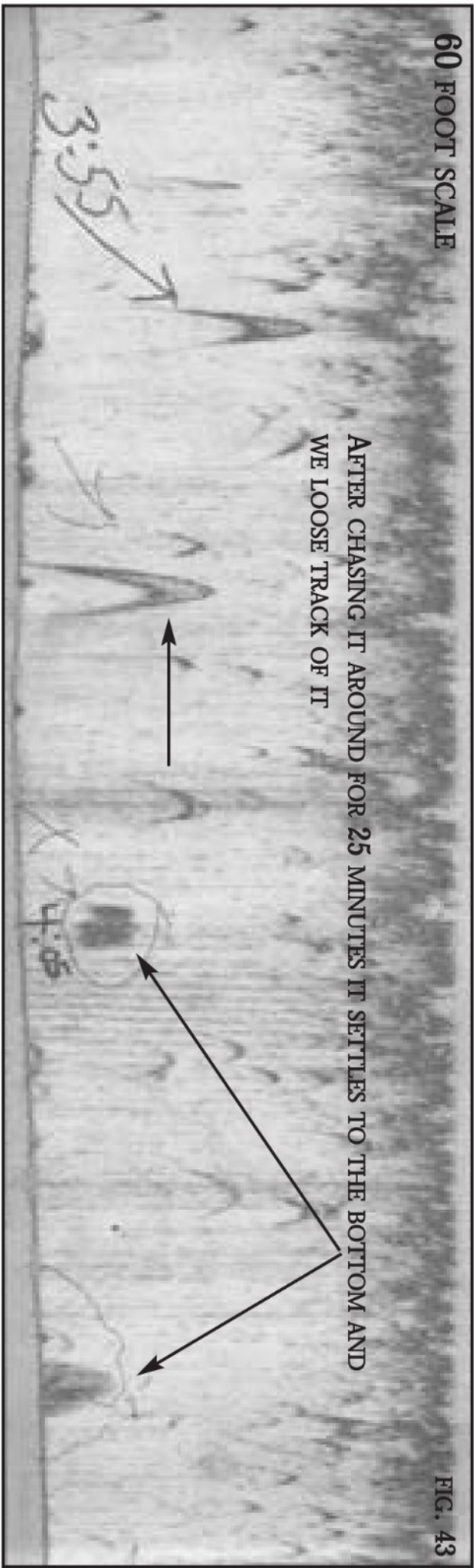
FIG. 41



July 4, 1993, Button Bay State Park - Ferrisburgh, Vermont. The sun had just set when I noticed a wake approaching from the south-east area of the bay. I took a picture, then noticed (through the lens) that more than a wake was now visible. I took three more pictures of the animal as it swam past me at a distance of 150 yards. The depth of the water it swam through was no more than 4 feet. The sighting, from when the wake first caught my attention, until the animal submerged, was about 20 seconds.



In 1993 Tokyo Broadcasting joined the search for Champ. One of the methods used in the search was a sonar scan of Lake Champlain from Button Bay, south, to Potash Bay. 15 boats each equipped with state of the art sonar & graph recorders spanned the width of the lake in an attempt to locate a Champtany. As the fleet neared Potash Bay in Addison, Vt. several boats simultaneously picked up a very large object.



HISTORICAL SIGHTINGS

WARNING!!!

CHAMPTANYSTROPHEUS IS A PROTECTED SPECIES!

ON APRIL 20, 1982, THE VERMONT HOUSE OF REPRESENTATIVES PASSED RESOLUTION H.R.19 IN ORDER TO PROTECT THE CREATURES KNOWN AS CHAMP.

“FROM ANY WILLFUL ACT RESULTING IN DEATH, INJURY OR HARASSMENT.”

THEN ON JUNE 3, 1982, THE NEW YORK STATE SENATE PASSED A SIMILAR RESOLUTION, FOLLOWED BY THE NEW YORK STATE ASSEMBLY ON APRIL 18, 1983, AS DEFINED THIS IS A:

“LEGISLATIVE RESOLUTION ENCOURAGING SERIOUS INQUIRY INTO THE EXISTENCE OF UNUSUAL ANIMALS IN LAKE CHAMPLAIN, ESPECIALLY ONE COMMONLY KNOWN AS “CHAMP”. PROTECTING CHAMP FROM ANY WILLFUL ACT RESULTING IN DEATH, INJURY, OR HARASSMENT; AND ENCOURAGING REPORT OF SIGHTING OF SUCH ANIMALS.”

HISTORICAL CHAMP SIGHTINGS

PART ONE: 1873

SUMMER 1873. The rails were being laid along the western shores of Lake Champlain. It was all that was left to close the gap between Plattsburgh and Whitehall, the last stretch of the railway link between New York City and Montreal. The rails had been laid along the western shore of the lake except for a few tough spots. One of these was at Dresden, in Washington County, New York, just north of Whitehall. It was here that the large reptile made its first 1873 appearance.

A work gang employed by the New York & Canada Railroad driving spikes on the lake shore accounted for the first recorded sighting in 1873.

As they told it, they, *"saw a head of an enormous serpent sticking out of the water and approaching them from the opposite shore."*

They gave the length of the monster as 20 feet and admitted to being so terror stricken as to be rooted to the spot. As the beast came closer, the spell was broken, and they scattered. The monster headed for the open water, but not before he had given his involuntary audience an unprecedented view which appeared as reported in the *Whitehall Times* of July 9, 1873:

"As he rapidly swam away, portions of his body, which seemed to be covered with bright silver-like scales, glistened in the sun like burnished metal. From his nostrils he would occasionally spurt streams of water above his head to an altitude of about 20 feet. The appearance of his head was round and flat, with a hood spreading out

from the lower part of it like a rubber cap often worn by mariners with a cape to keep the rain from running down the neck. His eyes were small and piercing, his mouth broad and provided with two rows of teeth, which he displayed to his beholder. As he moved off at a rate of 10 miles an hour, portions of his body appeared above the surface of the water, while his tail, which resembled that of a fish, was thrown out of the water quite often. "

The body of this monster was judged to be 20 inches in diameter. After skimming the surface for about a quarter of a mile, he simply dropped from sight.

A few days later, General David Barrett of Dresden, reported the loss of two calves from his pasture. Tracks nearby indicated the animals had been dragged to the shore of Lake Champlain; the grass between the pasture and the shore having been matted and broken as if something heavy had passed over it.

Other farmers in the vicinity reported losing sheep and fowl, and great bellowing was heard among their cattle at night. The General and his sons set a watch for the monster, hoping to catch it, or at least stop its night marauding.

The lake at Dresden offers a most impressive shoreline, full of bayous, marshes, and caves. The marsh called Cat Den makes a deep cut into Dresden Mountain, and Axehelve Bay is a deep slash in the rock opposite Pulpit Point. If a monster did exist in the lake, these and nearby caves would have made perfect places of concealment, where it might take its rest in absolute safety.

Local legend told of a cave on the Chapman farm that was supposed to be inhabited by huge monsters and reptiles, many observers claiming to have seen "*bright and hideous looking eyes*" in the darkness there. Harvey W. Buel admitted to having knowledge of an immense serpent in the vicinity for many years,

and the Barrett family testified that traces of the beast had been seen on their farms at intervals for ten or fifteen years. Two weeks before the sighting by the railroad gang, a party of fishermen had seen what they took to be a huge turtle surface four feet above the water in Lindley Marsh, with fish jumping excitedly all about it.

A few days after the Dresden sighting, General Barrett informed the *Whitehall Times* that he had seen the serpent just opposite his dock. He had run for his gun, but when he returned, the creature had disappeared. One of the General's sons set out to track it and was successful to the extent that he saw it dragging its immense length across the tall grass of the marsh, carrying what appeared to be a large turtle in its mouth. Barrett fired a shot at it, and it disappeared in the water.

A Whitehall citizen reported a land sighting of the snake near Jerry Collins' marsh two miles east of the village. Excitement mounted, armed parties searched the bays and marshes; visitors descended upon Dresden hoping for a view of the serpent; the railroad gangs worked in fear of their lives; all hoped to chronicle the destruction of the great snake.

The next week the search was intensified. C.S. Leonard, a railroad contractor, had charge of a work party filling in a deep ravine at General Barrett's place. As they poured the fill into the hole, workmen observed thrashing and excited movement at the bottom. Their companions laughed when they reported seeing a big snake, but Leonard claimed to have discovered bones, feathers, and the remains of fish he thought had been left by the monster when it fled.

Several more sightings occurred within a few days, one reported by a captain of a Northern Transportation Line steamer headed up lake with a tow of boats.

A few days later, General Barrett lost three dogs, one was later found dead and mangled in a marsh on his farm. The males of the countryside were forced to seek out and destroy the serpent.

The search continued during the following week, and the *Tribune* of July 30, 1873, reported a horse in Dresden was found with a broken back, an ox taken from a farm without a trace of its whereabouts, and farmers petitioning for aid in what they felt to be a condition of impending disaster.

Panic reached a crisis point when the little steamer, W.B. EDDY, struck the monster and was nearly overturned in the water. After the collision, First Mate Kin Holcomb and several passengers stood horrified as a great head and neck appeared on the surface not 100 feet away, and then swam off at the speed of a steamboat. A Putnam reader gave a short history of the serpent's previous activities in and around the caves and dens on the eastern shore of Lake George a little south of Gull Island. The writer told of an agent of P.T. Barnum, who entered the largest of these caves in an attempt to locate and capture a specimen of sea serpent or dragon for Barnum's exhibit. His agonizing screams followed his guide and attendant as he propelled his boat toward the west shore of the lake as fast as his hands could move the oars. The hunter was never seen again, the correspondent stated. He also related a case of a land sighting witnessed by at least six persons. The serpent was said to be fleeing Lake George in advance of a forest fire. After the fire the snake was thought to have abandoned his Lake George lairs for friendlier atmosphere on the western shore of Lake Champlain.

By August 4, 1873, the citizens of Whitehall were terrified, while newspapers across and up the lake ridiculed them. One exchange item suggested that the *Times* organize an exploring party to hunt down the monster. The suggestion may have

been made in jest, but the correspondent failed to realize the temper of the times and the quality of the editor of the *Times*, William A. Wilkins. Wilkins proceeded to organize just such a party. Informally organized groups had the week before tracked the monster to a den in Axehelve Bay, which they dared not enter, but in which they felt they had it successfully trapped until they could muster more strength and courage.

Wilkins commandeered a steamboat called the MOLYNEAUX, and on Saturday, August 9, 1873, he set out with a party of nearly twenty men for a position at the mouth of Axehelve Bay, which they planned to blockade until the serpent was forced to leave his place of concealment.

The *Whitehall Times* of August 13, 1873, described the short naval sortie in this way:

"Arriving at the entrance of the bay, we found that to all appearances Axehelve Bay was merely a deep ravine choked with tangled weeds. It was impossible for the eye to gaze into the inner recesses. It was finally proposed by Captain Belden of the MOLLY to fire several shots in amongst the scraggy and tangled mass of bushes and swamp weeds, and await the result... General Barrett (pressed into service as commander of the expedition) instructed, first, that the three men at the head of the line should discharge one barrel of their pieces into the bay. Then, at the second order, the next three in line should discharge three more shots in the same manner."

At a signal, the first three shots were sent. The smoke curled up from the muzzles of the guns as the contents went crackling in among the bushes. As three more muskets sent an echoing noise among the crag and peaks of Dresden, a terrible crackling and whistling noise greeted our ears. The noise was similar to that made by a great engine when it is discharging steam as its piston enters the steam chest. First, it was a low, suppressed bass whistle; then it gradually rose in strength and tone until our ears were greeted by a most unearthly noise. The order was given

(by Captain Belden) to steam away as the head of the mammoth snake appeared through the tangled vines. The hood upon its head flopped backwards and forwards like the immense ears of an elephant when being punished by his keeper. Great ridges of silver appeared above the surface of the water, undulating and scintillating in the bright sun like the highly polished surface of a warrior's silver helmet.

"The fan like tail of the horrid monster was waved in the air about six feet above the water's surface. His eyes resembled two burning coals, fairly snapping fire, as its rage increased, while the rows of long and formidable teeth, pearly white and wicked looking, sent an indescribable thrill through us, which we shall never forget. The body seemed to be about 18 to 20 inches thick in the middle, and 36 to 40 feet long while it gradually tapered off to both extremes... Our vessel began moving downstream. Shots were discharged at the great moving, waving mass of silver. Two streams of water arose high above the monster's head, the wind blowing the spray over us all on the boat... Shots were sent toward the monster by members of the party, and as he lashed the water with his fish like tail and gave great spasmodic powerful lurches with his broad flat head, we were confident that the shots were telling... Only about 25 feet was between us and the infuriated serpent, Hon. Charles Hughes and General Barrett discharged each a shot at it, when the head was seen to turn, the immense body begin to curve... Streams of red blood spurted from its head... At last the excited party observed the serpent give one spasmodic twist of its immense length, forming a circle by bringing its head around towards its tail; then the great serpent, which had caused so much excitement in this vicinity, disappeared beneath the red sea of blood, never to rise more by its own exertions."

With grappling hooks they tried to raise the body of the serpent, but all attempts were futile. Within a week the excitement of the chase and encounter had all but died down, and the inhabitants of the shore villages had resumed fishing as usual.

The *Times* of Aug. 20, 1873, ran a dispatch received from P.T. Barnum:

"EDITOR,
WHITEHALL TIMES, I HEREBY OFFER \$50,000 FOR THE HIDE OF THE
GREAT CHAMPLAIN SERPENT TO ADD TO MY MAMMOTH WORLD'S FAIR
SHOW. YOU ARE AUTHORIZED TO DRAW ON ME FOR ANY SUM NECESSARY
TO ASSIST IN SECURING THE MONSTER'S REMAINS.

SIGNED, P.T. BARNUM."

The offer was communicated to the parties at Dresden who had accompanied the expedition to Axehelve Bay, and the search of Lake Champlain began anew. Concurrently, the State Geologist was demanding the remains, should they be located, and newspapers along the lake shore, east and west, had picked up and were exploiting the serpent killing.

The *Vergennes Vermonter* berated Wilkins for appropriating what the editor, Johnson, believed to be his own sea serpent, by virtue of a record of years of sightings and interviews with the sighters. The *Rutland Daily Globe* wanted to know what kind of whisky was being sold in temperance minded Whitehall to create sea serpents described in the *Times*. The *Glens Falls Republican* did a humorous replay; but the *Burlington Free Press* recorded another sighting, this time in Shelburne Bay, discounting somewhat the story of the killing of the monster.

The *Plattsburgh Republican* said of the attempts to retrieve the body, "*God forbid! Don't resurrect it.*"

Papers in Chicago, Philadelphia, Hartford, Albany, and Ogdensburg made at least mention of the incidents reported from Whitehall. All the while letters were pouring in to the *Times* and to individual members of the expeditionary force on the MOLYNEAUX. Rumors spread that the serpent had been found, its skin placed in a copper kettle and shipped to the State House in Albany. This Wilkins denied in print, although he admitted the search for the carcass continued.

On September 7, 1873, the report was sounded that the carcass of the great snake had been found. Appropriately, since the incident opened with laborers on the New York & Canada Railroad making the original sighting, it closed with them also. This time at Putnam a work crew sitting on the lake shore spotted something floating past which seemed to be an immense body 40 to 50 feet long and about 20 to 25 inches thick.

They identified it as the body of the Champlain Serpent, so lately killed in the lake by the expedition fitted out by the editor of the *Times*. Men quickly filled three boats and set out in pursuit of the floating carcass, someone in the lead boat sounded the alarm to flee, for the serpent was alive; they fled. On shore they armed themselves with rifles, pistols, picks, and pikes and put off again, this time in a dozen boats. At the scene they slipped a rope noose over the tail of the beast and called for the oarsman to row for dear life.

The twelve tiny craft were pulled up to the dock, trailing their quarry. No sooner had they debarked when an argument started as to how the \$50,000 reward of P.T. Barnum should be split. Many thought that Barrett and Hughes would claim the reward, since they had fired the fatal shots. Others suspected Barnum would pay off to the editor of the *Whitehall Times*, since the offer of reward had been made to him. They finally agreed that one of their number would represent their interests,

and unless they received the money for the carcass, it would be destroyed. After the decision was made, fully one hundred men pulled on the ropes that secured the tail of the beast and hauled it up onto the dock.

"The body was stiff as a stick. "

The story goes:

"A large son of Erin pulled out his pocketknife and began scraping off the slime and weeds, when he gave a yell of laughter and exclaimed, 'BEJABERS, AND I'M DAMNED IF BARNUM WILL BE PAYING A LOT OF BLOODY GALOOTS \$50,000 FOR ONE OF GENERAL BARRETT'S DOCK STICKS. '"

If it was killed, the serpent's body was never located. Many sightings have been recorded since, including the repeated sightings of the early 1880's which accounts of you will find in the next chapter.

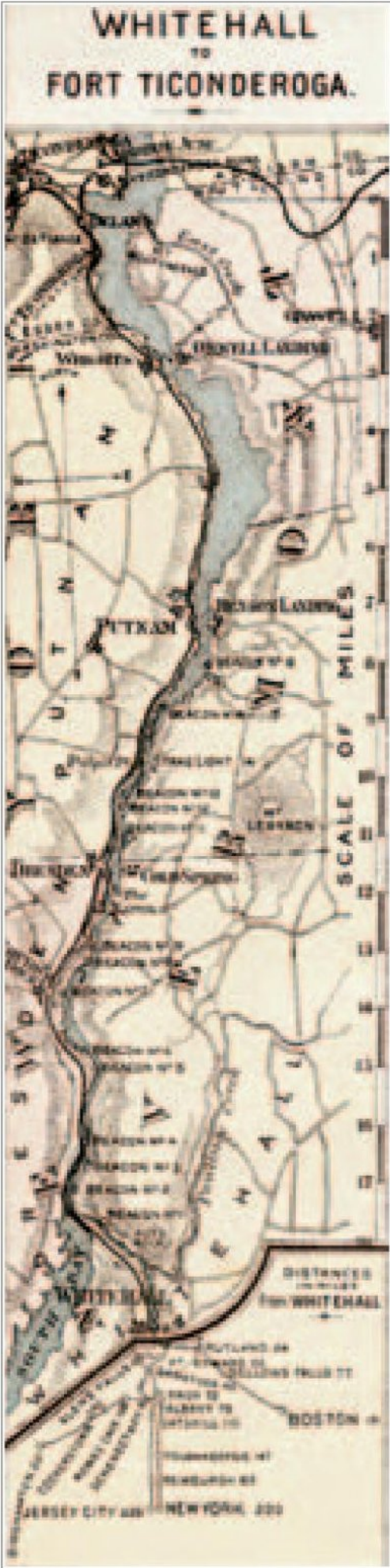


FIG. 44

THE SIGHTINGS IN THE TWO HISTORICAL CHAPTERS TAKE PLACE ON THE SOUTHERN END OF LAKE CHAMPLAIN.

THESE MAPS WILL HELP LOCATE THE SCENES OF THE ACTION PACKED ADVENTURES OF THE RESIDENTS OF VERMONT AND NEW YORK AS THEY ARE FORCED INTO BATTLE WITH AN UNKNOWN BEAST THAT HAD BEEN STEALING THEIR LIVESTOCK

THIS IS NON-FICTION AT ITS BEST.

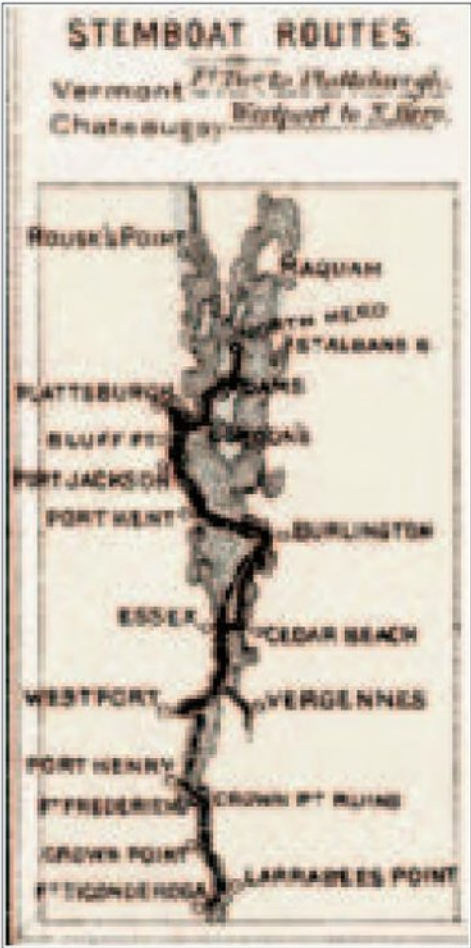


FIG. 45

AXEHOLVE BAY

FIG. 46



MAPS WERE ORIGINALLY PUBLISHED BY S.R. STODDARD OF GLENS FALLS, N.Y. IN 1892

HISTORICAL CHAMP SIGHTINGS

PART TWO: 1883-1887

During the mid-1880's, there was a rash of Champ sightings that would go unmatched until one hundred years later.

It would take a book of encyclopedic proportions to record completely the serpent's documented sightings on Lake Champlain.

When Clinton County, New York, Sheriff Captain Nathan H. Mooney reported to the *Plattsburgh Morning Telegram* what he had seen July 30, 1883, little did anyone suspect it was just the beginning:

"I looked off to the northwest, and I saw it appear again about 20 rods from us. I then discovered that it was an enormous snake or water serpent. It stood out about five feet from the water, with a long jaw, a snake shaped head at least eight inches across at the top or flat part, and ten inches from the top of the head to the end of the jaw ... Its body, which must have been twenty-five or thirty-five feet in length, was pointed to the north." SHERIFF NATHAN H. MOONEY.

Conditions were not precisely ideal for the sighting. The time was 4:30 p.m. and the weather, in Mooney's words, *"a very wild one, thunder storms raging all around the sky, sending the wind to all four points of the compass, with frequent downpours of rain ... the sun obscured by dark clouds ... the sea rough."* However, as the monster rose from the water, the clouds broke, the waves calmed, the sun appeared, and Mooney saw the creature at fifty yards distinctly enough to note round white spots inside its mouth.

The animal was seen many times during the rest of the summer and fall of 1883. The next two years proved different. If the animals were seen in Lake Champlain, the sightings were not recorded. Strange animals were seen elsewhere during this time period.

In September 1884, something was seen in the Gulf of the St. Lawrence. It was spotted at Iberville, Quebec, Hudson River, off the coast of Maine, and further north toward Nova Scotia.

In 1885, no sightings were reported.

In 1886, the animals were active as ever. They put on a display of acrobatics unlike any other year Lake Champlain had seen. Starting in July of that year and continuing through August of 1887, hardly a summer day went by without a sighting.

Reliable, trustworthy men witnessed its appearances, for the newspapers gave space to none but those best known for honesty. They came from all walks of life - doctors, business men, navigators, clergymen, salesmen, scholars, and gentlemen. All testified to its existence, having seen it floating, frolicking, or fleeing through the waters of the lake. It appeared in every part of the lake, north to south, east to west. It was seen close to shore, in mid-channel, and twice on dry land. It looked like a serpent, like a large Newfoundland dog, like a whale, like a log, like a seal. It defied description. It was observed in the morning, at noon, in the evening, under a bright moon, and at 2 o'clock in the morning. Its observers shot at it, chased it, threw stones at it, attempted to pick it up, hooked it with a fishing line, flailed it with an oar, shrieked at it, and two claimed to have caught it. Each of the three newspaper editors thought he had discovered what it was. At least two rewards were offered for its capture.

The excitement of 1886, began with a sighting on the Vermont side near Dead Creek. The *Morning Telegram* gave the details in the words of a Swanton fisherman:

"He was sporting and snorting in the morning sun. His body was out of water about fourteen feet, his head was well up and his great, red tongue kept licking his chops as if expecting a breakfast on some healthy camper; his eyes, as big as powder kegs, glowed wildly, his teeth looked like polished steel, and his horns were bright and brass-mounted; a kind of whalebone mane ran down his neck and a big buzz saw ornamented his breast. Scales as big as milk pails ornamented his sides, and his nickel plated tail was flailing the air for bald eagles. His color was a handsome drab with white points, and his belly was old gold."

From the tone of the story one infers that the writer thinks it a bit far-fetched, but a month later the same paper quotes a *"trustworthy statement by reliable citizens of the reappearance of the celebrated inhabitant of the deep, seen in Cumberland Bay."* It appeared at 7 o'clock in the morning to three gentlemen standing on the wharf of the Plattsburgh Dock Company. The day was sunny, calm and cloudless; the monster broke surface about 20 rods from its viewers. They estimated its length at 15 feet, its head at 15 to 18 inches long, its body as big around as a man. It swam with two feet of head and neck above the water and disappeared before they could take action.

Three evenings later three gentlemen fishing off a dock almost wrote *"finis"* to the monster legend when one of the men succeeded in hooking it. Being unequal to the task of hauling it in, he cried for help, and his two companions set their brawny backs to pulling with him. Together they raised to the surface the head of a horrible creature, at which point the line broke and the creature disappeared. A witness, uninvolved in the struggle, corroborated the story.

In September, 1886, there were three unspectacular sightings. In October, the *Plattsburgh Republican* published a history of the

sea serpent, tracing its origin to Bulwagga Bay, N.Y., opposite Addison, Vt., around the beginning of the 19th century. The story told of two recent sightings (1886) worth telling again.

The first occurred to a prominent St. Albans, Vt. gentleman who was hunting ducks near the Mississquoi River. *"it was just at daylight ... when he saw but a short distance away an enormous serpent coiled up on the swampy shore and asleep ... as large around as a man's thigh. He reached back to get his gun and in doing so made a slight noise when the serpent reared his head fiercely and ran off toward the tangle of undergrowth, making as much noise, as he went crashing through the bushes, as a large hound would."*

The second involved a married couple taking an evening buggy ride on Cumberland Head. They had tied the horse and strolled down to the beach, where they saw a serpentine head and neck a foot and one half out of water, swimming slowly toward them. The man threw stones at the creature and drove it away.

The following week the *Plattsburgh Sentinel* offered a \$1,000 reward for the capture, dead or alive, of the Lake Champlain sea serpent, the only condition being that its measurements exceed 20 feet.

The scene of the monster's exploits shifted in December to Willsboro Point, N.Y., where five reliable men watched through a spy glass as it swam ten miles at a mile-a-minute clip, trailing a wake of foam the length of the steamer VERMONT. All five men were converted from doubters to believers on the spot, according to the *Sentinel*.

The *Republican* verified the story by means of correspondence with a Willsboro hotelkeeper, who corroborated the statement of the five *"reliable men"* and offered a few new yarns to add to the growing legend. He himself had seen something on the steamship lane in Lake Champlain. He described it as light colored, almost white, the size of the steamship FLORENCE

WITHERBEE, and traveling at four times the speed. Another time he saw a tremendous sea coming north from Four Brothers Islands. It would roll, disappear, and reappear; but he failed to identify it.

Two fishermen tried to retrieve a long, colored log in Willsboro Bay; as soon as they moved toward it in a rowboat, it disappeared. A farmer spotted what he took to be a pole from his water fence floating about ten rods from his boat, and when he shifted to back toward it, the 11 inch pole took off at the speed of a railroad train. He more than matched that speed getting home, out of breath and thoroughly frightened.

The *Republican* offered the theory a few days later that this creature might be a whale in search of new pastures. Where there was one whale, there might be others, and the paper envisioned the lakeside villages calling for legislative appropriations for whaling stations.

The serpent season of 1887, opened in May with another sighting in the Willsboro area. This time a farm boy who heard noises at 2 o'clock in the morning ran out to the shore and saw a mile out a serpent shape as big around as a rain barrel, making noises like a steamboat.

Two weeks later Adirondack Murray, well-known sportsman and writer, reported the mystery solved. It was Friday, the 13th of May. Crowds were gathered at Battery Park in Burlington, Vermont, to view the monster, which had been visible off and on for three hours in the bay near Juniper Island. Murray said he watched at first with the naked eye. The creature seemed at least 100 feet longer than a canal boat at that distance; his color seemed at times slaty brown, at others, glistening white. His motion was undulatory and quivering, and his speed was astonishing.

When it disappeared, Murray went for his high-powered field glass and adjusted it to the proper focus. When the monster reappeared, he discovered it to be a flock of hundreds of plovers. Their backs were brown; their wings and breasts were white. Murray's theory was confirmed by the lighthouse keeper on Juniper Island. Independent of any knowledge of Murray's testimony, he stated that the sea serpent was nothing more than a flock of birds flying along the surface of the lake.

The Murray theory appeared in the *Sentinel*, while the *Republican* and *Morning Telegram* were quick to disclaim it, citing instances which seemed to be more or less in conflict with the plover theory.

The *Republican* related the story of the daughter of a clergyman, standing on the rear deck of a steamboat sailing out of Swanton, Vermont, who saw an animal following the wake of the boat a short distance away. She called Mr. Warren Rockwell, the pilot of the boat, who watched the animal for some time and finally shot at it, when it disappeared.

A doctor in North Hero saw from shore not five rods away from him what seemed to be a huge fish struggling in the shallow water. It rose up off the surface to a height of four feet, a cylindrical shape ten inches in diameter and dark in color. The doctor went to a nearby house for witnesses and they returned and watched with him while the creature swam out of sight.

On the 16th of May, 1887, the *Morning Telegram* rejoined the issue with the story of a party of soldiers who were fishing off the garrison and caught a creature, half fish and half animal, about 14 inches long with a flat arrow shaped head, four legs, tufted, and shaped like an eel. It was identified as the offspring of a great water lizard, and the paper hinted that a brood of these viper was being hatched in Lake Champlain.

Further disclaimers of the Murray theory came to the *Sentinel* from the Willsboro witnesses, who reported incidents of plover sightings and incidents of monster sightings, claiming that they knew the difference. One letter includes a brief reproval of Murray for serving his own interest in the yachting business better than he served the interest of truth.

The *Telegram* quoted several correspondents who ridiculed Murray's explanation. One writer said that he, too, had a powerful glass but saw no birds land. He wanted to know if there were birds, where they had gone when the monster disappeared ashore. Another claimed to have undisputable information that Murray had not even been present during the sighting on May 13th and actually knew nothing of it, until two hours after it occurred.

Early in July of 1887, the sea serpent appeared to a party of picnickers from Charlotte, Vermont. They described it as 75 feet in length and as big around as a barrel. The creature headed directly toward the party. Some of the women screamed; the creature turned and disappeared. A clergyman in the picnic party swore that they had with them no beverages stronger than coffee, tea, and lemonade.

Immediately a report came from a Lake George correspondent:

"The sea serpent, lately seen by a party of picnickers ... has left the lake (Champlain) and is making his way overland in the direction of Lake George. He was seen last night about five o'clock by a farmer driving to his barn with a load of hay. Chancing to look behind him... he saw a sight which he says he will never forget as long as he lives. Not five rods behind him, gliding along like a snake with its head raised about four feet from the ground was an immense monster anywhere from 25 to 75 feet in length, with gray and black streaks running lengthwise of its body which was

covered with scales. Its trail was plainly seen, but so great was the fear of the farmer that he would not let his men follow the serpent, which he says he has no doubt is the true and only sea serpent of Lake Champlain."

On August 12, through the columns of the *Sentinel*, P.T. Barnum, the famous showman, offered a reward of \$20,000 for the capture, dead or alive, of the sea serpent, the only condition being that the captors should preserve him and immediately notify Professor Ward of Rochester, New York.

The serpent sightings of the 1880's closed with a report in the *Sentinel* that Dr. Byrum (or Byram) of Keeler's Bay, Vermont, had captured it. His description of the animal follows:

"This animal, fish or serpent, is some six feet long, and weighs from 150 to 200 pounds, is jet black on its head, back, and sides, while its belly is white; the nose is hooked, the eyes small, and it can kick the water to a white foam. The animal was taken off Cooper's Point in a sturgeon's net. I have called it the baby sea serpent and want others to tell me what it is?"

GLOSSARY

ALLOMETRY

is the comparative measurement of dimensional parameters (length, mass, etc.) of one biological entity in relation to a second such entity employed as a standard or reference.

ARCHOSAUR

A group, including the pterosaurs, dinosaurs, birds and crocodiles that formed the dominant vertebrate family from the Late Triassic until the K-T boundary.

BACTERIA

unicellular, generally microscopic organisms having three typical forms: rod-shaped (bacillus), round (coccus), and spiral (spirillum). The cytoplasm of most bacteria-the oldest life-forms on earth-is surrounded by a cell wall; the nucleus contains DNA but lacks the nuclear membrane found in higher plants and animals. Many forms are mobile, propelled by movements of a filament like appendage (flagellum). Some bacteria can grow only in the presence of free or atmospheric oxygen (aerobes); others (anaerobes) cannot grow in its presence; and a third group (facultative anaerobes) can grow with or without it. In unfavorable conditions, many species form resistant spores. Different types of bacteria are capable of innumerable chemical metabolic transformations, including PHOTOSYNTHESIS and the conversion of free nitrogen and sulfur into AMINO ACIDS. Bacteria are both useful and harmful to humans. Some are used for soil enrichment with leguminous plants (see NITROGEN CYCLE), in alcohol and cheese fermentation, to decompose organic wastes and clean up toxic waste sites, and in Genetic Engineering. Others, called pathogens, cause a number of plant and animal diseases, including Cholera, Typhoid fever, and Tetanus.

BEST SEARCH DATE

List of dates I have theorized would produce sightings of the animals known as Champ. Over the past three years the dates have proved to be 65% accurate. **BEST DATES ICON** →



FIG. 47

BIOSTRATIGRAPHY

Biostratigraphy is a part of palaeontology that deals with using fossils to work out how two units of rock ('strata') relate in space and time.

BITUMINOUS SHALE

When plant and animal matter gets buried under tons of dirt and rocks for millions of years, it is transformed into shale and sometimes Bituminous coal.

BLUE-GREEN ALGA(E)

common name for cyanobacteria, widespread organisms of great importance in carbon and nitrogen cycles. Blue-green algae lack cell nuclei; some are unicellular, but most are filamentous or colonial. Most are photosynthetic. They were formerly considered ALGAE and placed in the plant kingdom, but they are now usually considered MONERANS.

CHOLERA

acute infectious disease caused by strains of the bacterium *Vibrio cholerae*. The bacteria, which are found in fecal-contaminated food and water and in raw or under cooked seafood, produce a TOXIN that affects the intestines, causing diarrhea, severe fluid and electrolyte loss, and, if untreated, death. Treatment consists of administration of glucose and electrolyte solutions; vaccines are of limited effectiveness. The disease remains prevalent in regions of the Third World where public sanitation is poor.

CAMBRIAN

The Cambrian is a geological period that began about 570 Million years ago and ended 505 million years ago. During this period many marine animal groups radiated quickly.

CHLOROPHYLL

green pigment in plants that gives most their color and enables them to carry on the process of PHOTOSYNTHESIS. Chlorophyll, found in the CHLOROPLASTS of the plant cell, is the only substance in nature able to trap and store the energy of sunlight. The light absorbed by chlorophyll molecules is mainly in the red and blue-violet parts of the visible spectrum; the green portion is not absorbed but reflected, and thus chlorophyll appears green.

CHLOROPLAST

complex, discrete, lens-shaped structure, or organelle, contained in the cytoplasm of plant cells. Chloroplasts have submicroscopic, disklike bodies, called grana, that house CHLOROPHYLL and are the central site of the process of PHOTOSYNTHESIS.

CONVERGENT EVOLUTION

The tendency of organisms to develop superficially similar structures, usually to solve the problems of living in the same sort of environment. For example, birds and bats both have wings, but do not have the same skeletal structure to their wings because of their different ancestors.

CRETACEOUS

The final geological period of the Mesozoic. It lasted from 140 Million years ago until 65 Million years ago. This is the period that saw the dinosaurs (except the birds!), pterosaurs and the ammonite die out. Named after the Latin (Creata) for chalk, due to the large chalk deposits laid down in Western Europe during this period.

DEVONIAN

A geological period that extended from 395 Million years ago to 345 million years ago. Named after the county of Devon in England.

DIAPSIDS

A special name for a group of animals that have two holes, called fenestra, in their skull behind their eye socket. This allowed their jaws to become more powerful by changing the way the muscles were attached.

DIVERSE

This means the same as diversity or biodiversity. It is measure of how many different species exist in an area at a given time. There are various ways to calculate diversity, and the best way to measure it is a cause of arguments amongst scientists still.

ECOLOGY

The study of how organisms interact with each other and their physical environment. To do this ecologists look at ecosystems.

ECOSYSTEM

All the members of a biological community and the physical environment the community exists in. Nutrients move around ecosystems in loops. For example: plants get energy and nutrients from the sun and soil are eaten by herbivores and carnivores eat the herbivores. Material is then returned to the soil by animal waste and bacteria that decompose carcasses.

ELASMOSAURUS

A member of the Pliesiosaur family. These animals best depicted what I and many people worldwide have seen. Until, I learned of the Tanystropheus. Up close sightings have proved that the animals known as Champ have webbed feet similar to a turtles. Elasmosaurus had paddle shaped limbs, which rules it out as a serious candidate for the animals seen in Lake Champlain.

ENDOD (AFRICAN SOAPBERRY)

The U.S.-based University of Toledo has applied for a patent on the use of Endod to control zebra mussels, but royalties will not go to the plant's original "proprietors"-the Ethiopian people who have selected and cultivated Endod for centuries. Nonetheless, if demand is created for Endod in the industrialized world, the Ethiopian people will benefit.

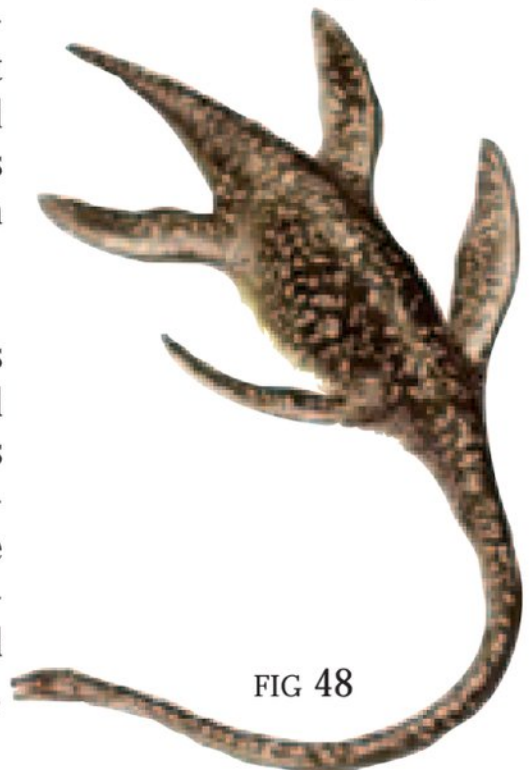


FIG 48

JURASSIC

One of the geological periods that makes up the Mesozoic era. It lasted from 190 Ma until 140 Ma. Named after the Jura mountains on the Swiss-French border.

K-T BOUNDARY/EVENT

The mass extinction that occurred at the boundary between the Cretaceous(K) and the Tertiary(T) is known as the K-T event. This is famous because it marks the end of the 160 Ma reign of the dinosaurs and related archosaurs. There is strong evidence that a meteorite impacted on the Earth just off the coast of Mexico at this time, but there is growing evidence that this acted as the final straw to the dinosaurs, which had been gradually declining anyway.

LARVAL

the early form of an animal (as a frog or sea urchin) that at birth or hatching is fundamentally unlike its parent and must metamorphose before assuming the adult characters.

LIVING FOSSILS

An organism that has no living relatives, although its fossil relatives are well known. This does not mean that it has not changed since its ancestors evolved, but it will have changed very little.

MACROCNEMUS

is described as being closely related to the Tanystropheus but much smaller in size. It like the Tany has a fishpole-like ribs running the length of its neck.

MASS EXTINCTION

An event in which large numbers of species die out in a very short time across the whole of the Earth. The K-T event was one of the 'Big Five', the five largest mass extinctions.

MESOZOIC

This term literally means 'middle life'. This is based on the old division of geological time into three eras, the Paleozoic, Mesozoic and Cenozoic.

This era is made up of three periods. The Triassic, Jurassic and Cretaceous. In terms of millions of years this period lasted from 248 million years to 65 million years.

MICROCYSTIS

When nutrients and water temperature are favorable for growth, this blue-green algae produces toxins which often cause the death of cattle and birds that drink the water containing it.

MITOSIS

process of nuclear division in a living cell by which the hereditary carriers, or CHROMOSOMES, are exactly replicated, the two parts being distributed to identical daughter nuclei. In mitosis each cell formed receives chromosomes that are a like in composition and equal in number to the chromosomes of the parent cell.

MOLLUSKA

A group of invertebrate with soft bodies that occur in marine and freshwater and on land. They breathe using gills and many species have protective shells.

MONERAN

member of the taxonomic kingdom Monera, which consists of organisms that lack cell nuclei, such as BACTERIA and BLUE-GREEN ALGAE.

NICHE

The way that an organism fits into an ecosystem, defined by what it eats, what eats it, and other factors. Species cannot coexist without competition if they try to occupy the same niche.

OVIPAROUS

Egg laying animals such as birds and most reptiles.

PERMIAN

The geological period that lasted from 280 Ma ago to 225 Ma ago. At the end of this period the largest mass extinction ever to hit life on Earth occurred. Up to 96% of all species died out. The period is named for the province of Perm in Russia.

PHOSPHORUS-RICH

Phosphorus is produced when soil oxidizes in sunlight. In this case the phosphorus rich environment is created by zebra mussels filtering the water as they feed. This in turn clears the water allowing more sunlight to reach the bottom of the lake - which oxidizes the soil and creates phosphorus.

PHYTOPLANKTON

are aquatic microscopic plants that grow near the surface where sunlight is plentiful. These small plants, which are composed of algae, are the bottom of the food chain for the entire planet. Phytoplankton require light for photosynthesis, so they usually are found near the surface of the water. A wide variety of adaptations help them stay afloat. Some beat their feet and tread water. Others have fins and spines that act as water wings. Others store extra food as oil, which buoys them up near the surface.

When phytoplankton become full of oil, they die and sink to the bottom. They become buried under mud and sand. Over millions of years, heat and pressure within the earth transform the oil from the algae into crude-oil deposits that can later be used by humans.

Climate change has a profound effect on ocean circulation and mixing patterns, and these in turn control nutrient availability to the ocean's phytoplankton and their access to the solar radiation that is required for photosynthesis.

During normal years, the Earth's oceans go through a process known as upwelling in which the easterly winds blow across the equator and drag the warm surface water with them. Then the denser, colder water from the depths

of the ocean rises, restoring oxygen and allowing mineral nutrients to return to the surface where phytoplankton can use them once again.

PHOTOSYNTHESIS

A chemical process that allows plants to make organic molecules from carbon dioxide and water, using the energy of the sun. Nearly all forms of life are either direct consumers of plants or eat the flesh of herbivores, so without photosynthesis there would be little or no life on Earth. Photosynthesis also supplies nearly all the oxygen in the atmosphere, another vital role of plants.

PLESIOSAURS

An important group of marine reptiles during the Age of Dinosaurs. Nearly as old as the dinosaurs, they made their first appearance during the Triassic and became extinct at the end of the Cretaceous. They were obviously less fish-like in form than the Ichthyosaurs, but were well adapted for life in the oceans. One group of plesiosaurs, generally referred to as '*ELASMOSAURS*', (SEE *ILLUS.PG.133*) had short tails and long necks. Pliosaurs, on the other hand, generally had a short neck and a relatively large head. In both groups, the body was broad and relatively compact, with closely set, strong ribs and well developed gastralia (belly ribs) to protect the abdomen. The limbs were also very large and modified into well developed, paddles which were the main means of propulsion. Recent studies of plesiosaur paddles has shown that, instead of being pulled back and forth like oars on a rowboat, they were 'flapped' up and down much like the wings of a bird or the paddles of a turtle. The plesiosaur, in effect, flew through the water. Most plesiosaurs were probably fish eaters. There is still some controversy about whether or not they laid eggs, but evidence found in South Dakota seems to point toward live birth. It is hard to imagine a forty foot plesiosaur struggling up on a beach to lay eggs like a sea turtle. There are probably physiological reasons (such as over-heating) why this would not work.

PRECAMBRIAN

The part of the geological record that exists before 570 million years ago. As the Earth is about 4.6 BILLION years old it is a very long period of time!

PLEISTOCENE

The Pleistocene Epoch, which occurred between 10,000 and 1.6 million years ago, was a period of intense cold. Throughout this period glaciers repeatedly rolled across North America bringing about tremendous ecological and topological changes. Maine, New York, Michigan, Minnesota and most of Indiana and Illinois were hidden under plates of ice - often over a mile in thickness. Pennsylvania, West Virginia, Missouri and much of what is now the western United States must have looked very much like parts of northern Canada look today - a mixture of tundra and swampy coniferous forest.

Toward the end of the Pleistocene, both the glaciers and their attendant tundra retreated northward into Canada and Alaska. Despite the disappearance of an

arctic tundra in the coterminous United States, many patches - "islands" - of tundra-like habitat remain. Alpine tundra can be found atop tall mountains where low temperatures and harsh winds discourage the growth of virtually all temperate zone species and lowlying, poorly drained kettlehole bogs may support many arctic species due to their acidic, anoxic conditions.

PRIMARY PRODUCER

A producer is an organism that acts as a food source for the next level up in the 'food chain'. Green plants are primary producers, because they are the lowest link in the food chain.

PROTOROSAURS

A small lizard that lived in the deserts of Europe during the Permian period. The long legs of these animals allowed them to chase after prey-mainly insects. The necks of these animals consisted of seven elongated vertebrae.

PTEROSAURS

Ranging from the size of a sparrow to the size of an airplane, the pterosaurs (Greek for "wing lizards") ruled the skies in the Jurassic and Cretaceous, and included the largest vertebrate ever known to fly.

RADIATION/ADAPTIVE RADIATION

These terms refer to events during which a single species gives rise to many other species. The flowering plants are a good example of this, as are the dinosaurs. These events often happen after mass extinction events, but not always.

ROD

Unit of measurement equaling 5.5 yards.

SOLNHOFEN LIMESTONE

A famous Jurassic deposit located in Bavaria in Germany. Many well preserved fossils have been found in this area, including fish, pterosaurs and turtles. Such deposits are known as Lagerstätten --- a German word meaning 'bonanza'.

SAUROPSIDA

Descendants of Mesosaurs - Parareptiles - incl. turtles - Eureptiles - incl. archosaurs (crocs, dinos, birds); lepidosaurs (snakes, lizards, tuatara), & various extinct reptiles.

SCULPIN

Any of a family of spiny large-headed broad-mouthed often scaleless bony fishes.

TANYTRACHELOS

The closest known sister-group to long-necked Tanystropheus. Both have 12 cervical vertebrae. Like pterosaurs, Tanytrachelos has procoelus (socket in front ball in back) cervicle vertebrae and a large fused sternum. The post-cloacal bones are double paired and huge. This small, short-tailed prolacertiform is known from a number of crushed, articulated specimens preserved as compressions on siltstone.

TANYSTROPHEUS

When first discovered in 1886, Tanystropheus was identified as the pterosaur "Tribelesodon". The neck bones were mistaken for wing bones and this mistake was not corrected until 1929. Actually it was not such a terrible mistake. Tanystropheus turns out to be a closer relative of pterosaurs than previously considered. Now there are at least two dozen specimens known, nearly all are in European museums or private collections.

TOXIN

poison produced by living organisms. Exotoxins, secreted by bacterial cells, have specific reaction sites in the host; e.g., the toxin associated with DIPHTHERIA affects mucous membranes and that associated with BOTULISM destroys nerve tissue. Substances such a snake venom are also considered exotoxins. The pathological effects of endotoxins, which are formed inside bacterial cells and freed when they die, are similar regardless of the type of bacteria (see TOXEMIA). The presence of toxins stimulates the production of antibodies, or antitoxins, one of the body's defenses against disease.

TOXEMIA

disease state caused by the presence in the blood of bacterial TOXINS or other harmful substances. The effects of the bacterial endotoxins include fever, hemorrhage, and shock; exotoxins attack specific tissues, e.g., botulinus toxin affects the nervous system.

TRIASSIC

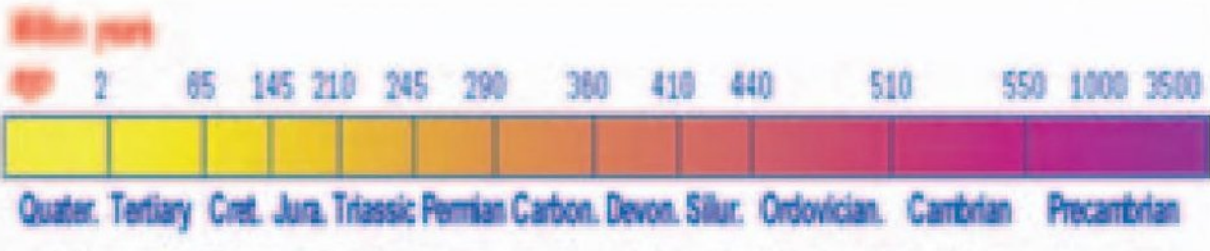
The first geological period of the Mesozoic. It lasted from 225 Ma until 190 Ma. This period saw many land animal groups come and go, ending with the archosaurs diversifying into many of the niches available.

THEOCODONT

A group of animals with their teeth set in sockets.

TIME LINE

FIG. 49



VIVIPARITY

Giving birth to well formed babies; as opposed to laying an egg like a bird.

ZEBRA MUSSEL

Zebra mussels are filter-feeders. They take water in, filter out the food, and then expel the water from their bodies. They must attach to a solid substance to mature into the adult stage. Once attached to their foundation they remain there for the rest of their lives. Many zebra mussels colonize with other zebra mussels on the same submerged object.

INDEX

1883 122
 seen many times 122
 1884 122
 seen in the Gulf of the St. Lawrence 122
 Hudson River 122
 Iberville, Quebec 122
 Maine 122
 Nova Scotia 122
 1885 122
 no sightings were reported anywhere 122
 1886 122, 123
 animals were active as ever 122
 September three sightings 123
 sighting on the Vermont side near Dead Creek 123
 1887 122, 125
 farm boy who heard noises 125
 hardly a summer day went by without a sighting 122
 sighting in the Willsboro area 125
 1954 19
 reptile was captured in Shelburne bay 19
 1976 19
 1997 SIGHTINGS 61
 June 30 (BEST DATE)
 July 8 (BEST DATE)
 Aug. 07 (BEST DATE)
 Aug. 19
 Aug. 28 (BEST DATE)
 1998 SIGHTINGS 67
 May 8
 May 15
 July 21 (BEST DATE)
 1999 FIELD GUIDE 19

1999 SIGHTINGS 73

June 1

June 14 (Best Date)

June 19 (Best Date)

July 7 (Best Date)

Aug.9 (Best Date)

A

ADDISON CO. VT 18

ADDISON, VERMONT 63

first to fall on a Best Date

ADDISON, VT. 124

ADIRONDACK MURRAY 125

well-known sportsman and writer 125

AFRICAN SOAPBERRY 35

Phytolacca Dodecandra

ALLOMETRY 53

ARCHOSAUIROMORPH 49

mobile on land

AXEHELVE BAY 112, 115

B

BARRETT, GENERAL 113, 119

commander of the expedition 115

fired a shot 113

lost three dogs 114

of Dresden, NY 112

would claim the reward 118

BEDFORD, NOVA SCOTIA 33

BENNINGTON COUNTY, VT. 34

BEST SEARCH DATES 63

March of 1997 I first published

BLUE-GREEN ALGAE 43

actually bacteria

one of the earliest life forms

BOMOSSEN, LAKE 38

BRATTLEBORO, VT [20](#), 27, 29
 BUEL, HARVEY W. [112](#)
 knowledge of an immense serpent [112](#)
 BULWAGGA BAY, N.Y. [124](#)
 BURLINGTON FREE PRESS [117](#)
 BURLINGTON, VT [125](#)
 Battery Park [125](#)
 crowd gathered to view the monster
 BUTTON BAY [18](#), [19](#)
 BYRUM, DR. [128](#)
 had captured it [128](#)
C
 CANADA 44
 CAT DEN [112](#)
 CAVES AND DENS [114](#)
 CHAMP
 had a companion 63
 had a fish in its mouth 71
 CHAMP QUEST [15](#), 37, 63
 Protect the animals known as Champ
 Better understand the animals known as Champ
 Monitor the impact Zebra Mussels
 web site went online in March of 1997
 CHAMP SEEN JULY 21, 1998 71
 CHAMPLAIN SEA 44
 flowed to the south
 CHAMPLAIN SERPENT [117](#), 118
 CHAMPLAIN VALLEY 43
 CHAMPLAIN, SAMUEL DE 28, 58
 describes in detail the Gar Pike
 CHAMPTANYSTROPHEUS [20](#), 25
 CLOSEUP OF AN ALGAE BLOOM 45
 CONNECTICUT RIVER 27
 CONNECTICUT RIVER VALLEY 25

COOPER'S POINT 128

CREATURE 126

half fish and half animal 126

identified as the offspring 126

Lake Champlain 126

CRYPTOZOOLOGISTS 16

CUMBERLAND BAY 123

CUMBERLAND HEAD 124

D

DISCOVERY CHANNEL 71

DRAGON 114

DRESDEN 112, 117

Dresden 112

DRESDEN MOUNTAIN 112

DUEL, RICHARD A. 15

from Pennsylvania

DUNMORE, LAKE 38

E

ELASMOSAURUS 16

EMERSON, LINDE 18

a park ranger for 15 years 19

ENDOD 35

EPA 36

ETHAN ALLEN 37

EYEWITNESS DESCRIPTIONS 112

18 to 20 inches thick in the middle 116

20 inches in diameter 112

eyewitness description 7

fan like tail 116

huge turtle 113

immense body begin to curve 116

P.T. Barnum 117

two rows of teeth 112

F

FORKED TONGUE [15](#)

FOUR BROTHERS ISLANDS 125

FULL BLOWN ALGAE BLOOM 41

G

GAR PIKE 58

GREAT LAKES 33, 35

GREAT LAKES SCIENCE CENTER 39

GREAT WATER LIZARD 126

GREEN MOUNTAIN BOYS 37

GULL ISLAND [114](#)

H

HALL, BENJAMIN [H. 25](#)

description of the “Indian Rock” 27

HALL, PRESTON NEIL [15](#)

HALL, WILLIAM [H. 19](#)

HISTORY OF EASTERN VERMONT 25

HOLCOMB, FIRST MATE [114](#)

HORTONIA, LAKE 38

HUGHES, HON. CHARLES

discharged a shot at it 116

would claim the reward 118

I

INDIAN ROCK 25

covered with earth to the depth of six feet 27

covered with inscriptions 27

deeply carved figures

illustration 26

Indian Rock 27

ten feet in width, and eight feet in height 27

ISLAND POND, VT. 34

J

JOHNS HOPKINS UNIVERSITY 36

JUNIPER ISLAND 125, 126

K

KEELER'S BAY, VERMONT 128

L

LAKE CHAMPLAIN [15](#), [16](#), [20](#), 33, 34, 36, 43, 44, 58, 63, [114](#), [117](#), 122, 124

steamship lane 124

LAKE GEORGE 40, [114](#), 127

forest fire [114](#)

low-calcium conditions 40

Zebra mussel 40

LAKE MEMPHREMAGOG 34

LAKE ONTARIO 35

LAKE ST. CLAIR 35, 39

LAKE VERMONT 44

LAND SIGHTING 113, [114](#)

Jerry Collins' marsh 113

LEONARD, C.S. 113

railroad contractor 113

LUNAR BASED DATES [17](#)

M

MACROCNEMUS [19](#), 53

MANDATORY FOR EVERY STUDENT 37

MANSI PHOTO 29

MANSI, SANDI 28

MCCONNELL, RANDY 39

MESOZOIC ERA [16](#)

METTAWEE RIVER 34

MISSISSQUOI RIVER 124

MONTREAL 44

MOONEY, NATHAN [H](#). 121

New York Sheriff 121

saw the creature at fifty yards 121

MORNING TELEGRAM 123, 126

N

NADEAU FARM [7](#)

Crown Point, NY

NATIONAL GEOGRAPHIC SOCIETY [20](#)

NEW MOON [17](#)

NEW YORK 37, 40, 44

NEW YORK & CANADA RAILROAD 118

NIERZWICKI-BAUER, PROF. SANDRA 40

NORTH AMERICA 33

NORTH CAROLINA 52

NORTH HERO 126

NORTH HERO, VERMONT 70

NORTHERN TRANSPORTATION LINE 113

O

OMIT A HISSING NOISE [15](#)

OTTER CREEK [19](#)

OVIPAROUS 54

P

P.T. BARNUM [114](#), 118, 128

[\\$20,000](#) for the capture 128

\$50,000 118

\$50,000 for the hide [117](#)

PANTON, VERMONT [17](#)

PLATTSBURGH DOCK COMPANY 123

PLATTSBURGH MORNING TELEGRAM 121

PLATTSBURGH REPUBLICAN [117](#), 123

PLATTSBURGH SENTINEL 124

PLEISTOCENE 44

PLESIOSAUR [16](#)

PLESIOSAURUS [16](#)

PLOVER THEORY 126

PROVINCE OF QUEBEC 44

PULPIT POINT 112

R

RAM, NATALIE 33

C.P. Allen High School

RED ROCKS PARK 69

RENSSELAER POLYTECHNIC INSTITUTE 40

RICHELEAU RIVER 43

ROCKWELL, WARREN 126

shot at it 126

S

SENECA RIVER, N.Y. 35

SERPENT 111

SERPENT'S BODY WAS NEVER LOCATED 119

SHELBURNE BAY 69, [117](#)

SHORE ACRES 70

is seen frequently during the summer 70

video taken of animal May [15](#), 1998 70

SOUTH BURLINGTON, VERMONT

Barnes and Noble [16](#)

ST. ALBANS 124

ST. ALBANS BAY, VERMONT 71

ST. LAWRENCE VALLEY 44

ST. LAWRENCE RIVER 44

STEAMERS

Florence Witherbee 124

Molly [115](#)

Molyneaux [115](#), 118

Vermont 124

W.B. Eddy [114](#)

struck the monster [114](#)

SWANTON 126

SWANTON, VT 123

T

TANYSTROPHEUS [16](#), [20](#), 52

TANYSTROPHEUS 29

fossilized remains 29

TANYTRACHELOS 52

THAYER 39

THE GLENS FALLS REPUBLICAN [117](#)

THE RUTLAND DAILY GLOBE [117](#)

U

UNITED STATES 43

UNIVERSITY OF TOLEDO 36

V

VERGENNES [19](#)

VERGENNES VERMONTER [117](#)

VERMONT 34, 37, 44

VERMONTERS 36

VIRGINIA 52

VIVIPARITY 53

VTDEC 37

available free 38

Vermont Department of Environmental Conservation 37

VTDEC AT (802)-241-3777 38

W

WALLEYE 39

WEST RIVER 27

WANTASTIQUET RIVER 27

WHAT DID YOU LEARN TODAY 37

WHITEHALL [114](#)

WHITEHALL TIMES [115](#), [117](#), 118

WHITEHALL, N. Y. 43

WILKINS, WILLIAM A. [115](#)

organize search party [115](#)

tracked the monster to a den [115](#)

WILLSBORO 124

Bay 125

WILLSBORO POINT 124

WISCONSIN GLACIATION 44

WORLD'S FAIR SHOW [117](#)

Y

YELLOW PERCH 39

getting larger 39

grew faster 39

Z

ZEBRA MUSSEL 33

attach themselves 34

confirmed in Lake Champlain 33

eat virtually everything they can filter 43

except for microcystis

Immediate Action that must be taken 38

Drain

Dry

Leave

Inspect

Known Facts 34

native to the Caspian and Black sea 33

offspring that adapt 40

small freshwater mollusk 33

ZEBRA MUSSELS 33

ZMCAP 37

Zebra Mussel Citizen Action Program 37

SIGHTING REPORT

Vermont Reptile and Amphibian Report

Please fill out both sides of this report as completely as you can.

Species common name _____

Latin name _____

Date of sighting _____ State _____ County _____

Town _____ Specific location _____

Directions to the location _____

Describe the habitat (e.g., meadow, marsh, woods). _____

Who owns the land where this animal was found? _____

Good quality photographs or tapes allow others to verify your report. Include copies of them if at all possible. List the tapes and photographs which accompany this record. Be sure to label each tape or photograph.

How did you observe the animal? Naked eye? Binoculars? Did you hear it? How far away was it? How long did you observe or hear it? How clearly did you see or hear it?

What field marks did you use to identify it?

Additional details are needed on the back of this sheet. —> —> —> —> —> —>

How familiar are you with this species? Have you identified it before? How many times?

What field marks did you use to rule out similar species? **This is the most important question. Answer it carefully!**

Miscellaneous additional information (**malformities** ?, numbers, lengths, behavior, sex, weather, other species that it was found with, etc.)

Observers' names, addresses and phone numbers

SEND REPORT TO:

CHAMP QUEST
860 Panton Road
Panton, Vermont 05491

EMAIL: dhall@champquest.com

WEB SITE UPDATES: <http://www.champquest.com>

REFERENCE:

Burlington Free Press 2 July 1994

Graffagnino, Kevin J. The Shaping of Vermont Heritage Press 1983

Hemenway, Abby Vermont Historical Gazetteer

Supplement to the Valley News Elizabethtown, NY. Aug. 10, 1978

Watson, Winslow C. History of Essex County, NY. 1869

Welsh, H.H., Jr., and A. Lind. 1997. Abstract. American Society of Ichthyologists and Herpetologists. Conference Proceedings, 77th Annual Meeting, June 26-July 7, 1997, University of Washington, Seattle, WA.

WILD, R. 1973. DIE TRASFUNA DER TESSINER KALKALPEN XXIII.

TANYSTROPHEUS LONGOBARDICUS (BASSANI) (NEUE ERGEBNISSE).

SCHWEIZERISCHE PALÄONTOLOGISCHE ABHANDLUNGEN MÉMOIRES SUISSES DE PALÉONTOLOGIE, VOL. 95, 1973.

Zarzynski, Joe *Champ Beyond the Legend* 1988

WEB:

<http://palaeo.gly.bris.ac.uk/communication/Mcgowan/LAND>

<http://www.dkonline.com/dino2>http://www.crl.com/~sarima/dinosaurs/genera/din_h/haltcsrs.html/private/express/museums/calgaryzoo.html

<http://home.sol.no/~enrique/a-z.htm#T>

<http://www.enn.com/enn-news-archive/1998/10/102298/lgeorge.asp>

<http://www.champquest.com>

GOOD LUCK!!!



Button Bay Button - Found by the author on the shore of Lake Champlain while searching for its look alike.....Champ

